CALIFORNIA JOURNAL

OF

SECONDARY EDUCATION

November, 1935

CALIFORNIA SOCIETY OF SECONDARY EDUCATION
BLISS BUILDING, 506 SANTA MONICA BOULEVARD
SANTA MONICA, CALIFORNIA

VOLUME X NOVEMBER, 1935 NUMBER 8

CONTENTS

William John Cooper—*An Appreciation* by W. W. Kemp.....*Frontispiece*

PHYSICAL AND BIOLOGICAL SCIENCES
—*A Symposium*

1. Principles and Organization of the Sciences in Secondary Schools .....*Arthur Gould* 479
2. Generalized Science Instruction in the Secondary School .....*Fred Anibal* 482
3. Reorganization of High School Science Instruction .....*Roy A. Knapp* 485
4. The Improvement of Junior College Physical Science Teaching .....*W. C. Shaver* and *C. F. Eckels* 489
5. A Sound Approach to Chemistry Teaching.....*George I. Linn* 492

A Plan of Guidance for a Junior College.....*Robert J. Parker* 496

The Socially-Centered vs. the Subject-Centered, or the Child-Centered School.....*William Martin Proctor* 503

The New School Will Be the Product of the New Curriculum .....*Muriel Edwards* 509

English Curriculum Commission Completes Work.....*Holland D. Roberts* 513

An Experiment in Informal Education.....*Rose E. Stetler* 515

Public Speaking: A Course in Mental Health and Personal Development.....*Kathryn Heinz Livingston* 521

Journalism in the High Schools of California.....*Harold L. Casiday* 525

Los Angeles Meets the New Challenge of Leisure.....*Wm. B. Brown* 527

Highlights From the Magazines.....*J. Murray Lee* 533

The CALIFORNIA JOURNAL OF SECONDARY EDUCATION is published by the California Society of Secondary Education, in eight numbers during the year, and is issued in the calendar months of January, February, March, April, May, October, November, and December. One dollar and fifty cents of each membership fee in the Society is for a year's subscription to THE JOURNAL.

Subscription to non-members is $3.00 per year; single copies, 50 cents. Annual subscriptions in all countries in the International Postal Union, $3.25. Members and subscribers are requested to report at once any change of address, giving old as well as new address. Entered as second-class matter, October 9, 1925, at the post office at Santa Monica, California, under the Act of August 24, 1912.

CALIFORNIA SOCIETY OF SECONDARY EDUCATION
Bliss Building, 506 Santa Monica Boulevard
Santa Monica, California

CALIFORNIA SOCIETY OF SECONDARY EDUCATION

Incorporated under the Laws of California as a non-profit association.

OFFICERS

President
DR. JOHN W. HARBESON

First Vice-President
DR. ETHEL PERCY ANDRUS

Second Vice-President
WILLIAM F. EWING

EXECUTIVE BOARD

DR. JOHN W. HARBESON *(ex-officio)*
DR. ETHEL PERCY ANDRUS *(ex-officio)*
WILLIAM F. EWING *(ex-officio)*
JOHN ASELTINE
L. P. FARRIS
GEORGE C. JENSEN
HERMAN A. SPINDT
ALICE BALL STRUTHERS
DR. FRANK C. TOUTON

Secretary and Managing Director
HORACE M. REBOK

Office Address
Bliss Building, Santa Monica, California

BOARD OF TRUSTEES

DR. ETHEL PERCY ANDRUS
Principal, Abraham Lincoln High School, Los Angeles

ARNOLD C. ARGO
Principal, Sequoia Union High School, Redwood City

JOHN ASELTINE
Principal, San Diego Senior High School

J. WARREN AYER
District Superintendent of Schools, and Principal of Monrovia-Arcadia-Duarte Union High School, Monrovia

GEORGE J. BADURA
Principal, Fortuna Union High School

A. R. CLIFTON
County Superintendent of Schools, Los Angeles

A. J. CLOUD
President, San Francisco Junior College, San Francisco

DR. MARVIN L. DARSIE
Dean of the Teachers College, University of California at Los Angeles

WILLIAM F. EWING
Assistant Superintendent of Schools, Oakland

L. P. FARRIS
Principal, Oakland High School

ARTHUR GOULD
Deputy Superintendent of Schools, Los Angeles

DR. JOHN W. HARBESON
Principal, Pasadena Junior College

O. S. HUBBARD
City Superintendent of Schools, Fresno

ROSCO CHANDLER INGALLS
Director, Los Angeles Junior College

GEORGE C. JENSEN
Principal, Senior High School, Sacramento

JOHN L. LOUNSBURY
Principal, Long Beach Junior College

J. R. MCKILLOP
District Superintendent of Schools, Monterey

HARRY J. MOORE
Principal, Woodrow Wilson Senior High School, Long Beach

ALBERT C. OLNEY
President, Marin Union Junior College, Kentfield

DR. WILLIAM M. PROCTOR
Professor of Education, Stanford University

CHARLES E. RUGH
Professor of Education, University of California, Berkeley

HERMAN A. SPINDT
District Superintendent of Kern County Union High School District, and Principal of High School and Junior College, Bakersfield

MRS. ALICE BALL STRUTHERS
Principal, Thomas Starr King Junior High School, Los Angeles

DR. GEORGE C. THOMPSON
Principal, Alameda High School

DR. FRANK C. TOUTON
Vice-President and Director of the Educational Program, University of Southern California, Los Angeles

EX-OFFICIO HONORARY MEMBERS OF BOARD OF TRUSTEES

DR. VIERLING KERSEY
State Superintendent of Public Instruction
DR. AUBREY A. DOUGLASS
Chief of Division of Secondary Education, State Department of Education

SUSTAINING MEMBERS OF THE SOCIETY

MILTON NEWMARK,
Crocker Building, San Francisco.

Association of California Secondary School Principals, Dr. Ethel Percy Andrus, President, 3625 North Broadway, Los Angeles; Harry G. Hansell, Secretary, 2694 Twenty-third Avenue, San Francisco.

California Teachers Association:
Bay Section, Genevieve Nicholson, President, Alameda; E. G. Gridley, Secretary, 2163 Center Street, Berkeley.
Northern Section, Fordyce Stewart, President, Chico; Mrs. Portia F. Moss, Secretary, Auburn.

LIFE CORPORATE MEMBERS

(Limited to 100. Fee $50.00)

Dr. Ethel Percy Andrus, Principal, Abraham Lincoln High School, Los Angeles.
A. C. Argo, Principal, Sequoia Union High. School, Redwood City.
R. F. Aspinall, Supervising Principal, Fresno Technical High Scoool and Junior College, Fresno.
Capt. Delbert Brunton, Principal, Mountain View Union High School, Mountain View.
Lewis W. Clark, Chairman, English Social Studies Dept., Ventura Union Junior High School, Ventura.
Archibald J. Cloud, President, San Francisco Junior College, San Francisco.
William F. Ewing, Assistant Superintendent of Schools, in Charge of Administration, Oakland.
L. P. Farris, Principal, Oakland High School, Oakland.
Dr. Lowell C. Frost, Head of Science Department, Beverly Hills High School, Beverly Hills.
George H. Geyer, Principal, Westwood High School, Westwood.
Robert R. Hartzell, Principal, Red Bluff Union High School, Red Bluff.
Annie G. Harvey, Teacher of General Science, Washington Junior High School, Fresno.
Dr. C. L. Hughes, Assistant Professor of Education and Assistant Director of Practice Teaching, University of California, Berkeley.
J. R. McKillop, District Superintendent of Schools, Monterey.
Rhoda McRae, Teacher of Social Studies, Roosevelt High School, Oakland.
Attilio G. Parisi, Teacher of Physical Education, Audubon Junior High School, Los Angeles.
F. J. Prieble, Director of Commercial Education, Sacramento High School, Sacramento.
Horace M. Rebok, Managing Director, California Society of Secondary Education, Santa Monica.
Marjorie Nichols Shea, Vice-Principal, Abraham Lincoln High School, Los Angeles.
Alice Ball Struthers, Principal, Thomas Starr King Junior High School, Los Angeles.
Ruth G. Sumner, Teacher of Mathematics, Frick Junior High School, Oakland.
Dr. Frank C. Touton, Vice-President and Director of the Educational Program, University of Southern California, Los Angeles.
Helen E. Ward, Vice-Principal, Salinas Union High School, Salinas.
Dr. Frederick J. Weersing, Professor of Education, University of Southern California, Los Angeles.

LIFE CORPORATE MEMBERSHIP

•

A Professional and Financial Investment

That Will Pay Large Dividends

Life Corporate members are entitled to copies of all periodicals and reports published by the Society, (including annually a copy of the California School Directory for their personal use), and to the right to vote and hold office. The names of Life Members are published in this number of The Journal. Life Corporate membership is limited to 100.

The Life Corporate Membership fee is $50.00, and may be paid in four semi-annual installments of $12.50 each. Credit may be taken for any dues paid for 1935.

For further information, address
CALIFORNIA SOCIETY OF SECONDARY EDUCATION
Bliss Building
Santa Monica, California

2 NEW BOOKS

BUTTON

Creative English

A BOOK that aims to develop the pupil's observation and the other senses as real sources for creative writing. The discussion is short, simple, concrete; the practical exercise material, abundant. The fundamentals of English are included. A good book for improvement in expression and for directing the mind to the cultural and the beautiful. $1.00.

COLLETTE

High Road to English Literature

In direct, readable, vital style, Miss Collette discusses types of literature and authors of importance in English literature from the fifth century to the present time against a background of history, social conditions, and geography. It is, in spite of its scope, a delightfully unhurried treatment, and it is twentieth-century American in point of view. Valuable reading lists. Charmingly illustrated. $1.60.

(Prices subject to discount.)

GINN AND COMPANY

45 SECOND STREET, SAN FRANCISCO

California School of Arts and Crafts

STATE ACCREDITED

APPLIED ARTS

Thorough preparation for life work in advertising art, costume design, interior decoration, stage design, etc. Degree and non-degree courses.

FINE ARTS

Complete professional training for life work in portrait, landscape, mural painting, and sculpture. Degree and non-degree courses.

ART EDUCATION

Fully accredited courses leading to Bachelor's degree and Special Secondary Credential in the arts, crafts, and household arts. Graduates of this division of the school are teaching successfully in the high school and junior colleges of California.

Write for Illustrated Catalog

CALIFORNIA SCHOOL OF ARTS AND CRAFTS

Broadway at College Avenue . . . Oakland, California

School Bulletins
School Journals
School Annuals

We convert Teachers' "Hobby Manuscripts" into Finely Printed Booklets . . . Genuinely Bound for Generations of Reference

1412-14 WEST 12th STREET

Wm. B. Straube Printing Co. — Art in Type

LOS ANGELES CALIFORNIA

HYGIENE AND HOME NURSING

By Louisa C. Lippitt :: *Edited by J. W. Ritchie*

Modern, practical, and teachable—this book provides guidance to meet the special needs of girls.

1. Gives understanding of the principles of personal and community hygiene.
2. Offers concrete direction in handling special problems and emergencies of the home.

Send for description

WORLD BOOK COMPANY
149 New Montgomery Street, San Francisco

DIPLOMAS
GRADUATION ANNOUNCEMENTS
CLASS RINGS ... PINS
MEDALS ... CUPS

The quality of our work and the dependability of our service are the reasons why we have successfully served the schools of California for over twenty years.

THE T. V. ALLEN CO.

Manufacturing
Jewelers & Stationers

810-16 MAPLE AVENUE LOS ANGELES, CALIFORNIA

New Secondary Books

FOR JUNIOR HIGH SCHOOLS

	List Price
Hunter & Whitman's The March of Science	
My Own Science Problems (7)	$1.20
Science in Our Social Life (8)	1.28
Science in Our World of Progress (9)	1.60
Strayer-Upton's Practical Junior Mathematics	
Book One (7)	.84
Book Two (8)	.92
Book Three (In preparation)	
Nyberg's Survey of High School Mathematics (9)	1.00

FOR HIGH SCHOOLS

Bennett's Literature for the High School	
Trail Breaking (9)	1.20
On the High Road (10)	1.20
American Literature (11)	1.20
English Literature (12)	1.20
Capen & Melchior's My Worth to the World (9)	1.48
Fish & Wilson's History of the United States (11-12)	2.12
Halleck's The Romance of American Literature (11-12)	1.40
Lake's American Symphonic Bandbook	
Conductor's Score (9-12)	2.36
43 Separate Instruments Parts (9-12), EACH	.48
Lehmann's Shop Projects in Electricity (9-12)	.96
McKitrick & West's English in Daily Use (9-10)	1.44
Book I (9)	1.08
Book II (10)	1.12
Shuster-Bedford's Field Work in Mathematics (11-12)	1.20
Van Tuyl's Mathematics at Work (9)	1.00

FOR HIGH SCHOOL TEACHERS

Hunter's Science Teaching—at Junior and Senior High School Levels	2.50
Seely's On Teaching English	2.00
Smith's The Teaching of Literature in the High School	2.00

THESE BOOKS SHOULD BE SEEN TO BE APPRECIATED

WE INVITE CORRESPONDENCE

AMERICAN BOOK COMPANY

121 SECOND STREET, SAN FRANCISCO

NEW YORK CINCINNATI CHICAGO

An Introduction to Family Relationships

for the Young Men and Women of

Advanced High School Classes

HOME AND FAMILY

Jordan—Ziller—Brown

This is a realistic and intimate study of the factors—spiritual and material—that make up the successful and happy home. It covers much more than the usual home economics text and more than the ordinary sociology text, paralleling the interdependence of these two fields in real life. Here are facts about food, clothing, shelter, health, economic principles, management; and about the relationships that have to do with husband and wife, parents and children, the home and community, the family and society; about the institutions of marriage and the family, and about the family as a personal problem and responsibility.

Some Special Features

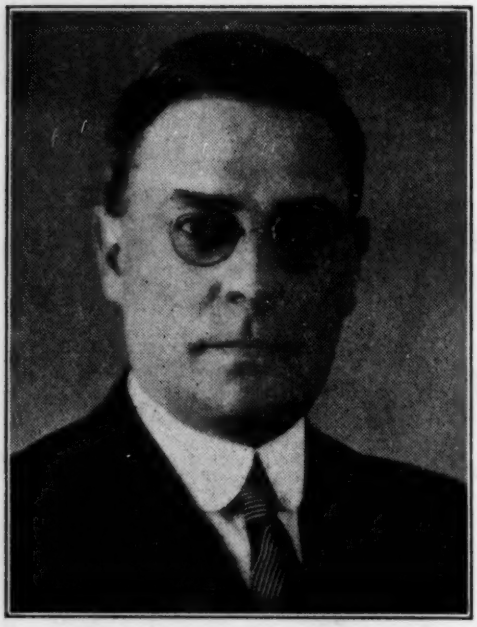
A BRIEF HISTORY OF FAMILY LIFE from the early days of cave - dwellers to the modern apartment-dweller shows how social customs evolved.

CHILD CARE, from birth through adolescence, an important and often neglected, subject is treated thoroughly in this study.

THE FAMILY AS A PERSONAL PROBLEM is a subject handled sensibly and openly, in a way perfectly suited for discussion in a mixed class of both boys and girls.

418 pages. $1.60 (list price)

350 MISSION ST. **THE MACMILLAN COMPANY** SAN FRANCISCO



William John Cooper

An Appreciation by

W. W. KEMP

Dean of the School of Education,
University of California

William John Cooper was born in Sacramento, California, November 24, 1882. From the Red Bluff High School he entered the University of California, and took his A.B. degree in 1906 with a double major in Latin and history. As an indication of his early promise of leadership, representatives of these departments have recorded their impressions of him as "a distinguished student" and "an unusually promising man."

His M.A. degree, taken while he was Head of the Department of Social Studies and Supervisor of these subjects in Oakland, was granted in 1917, with a double major in education and history. He held the honorary degree of Doctor of Education from The University of Southern California, Ph.D. from the Albany State College, Doctor of Science from George Washington University, Doctor of Litt. from Rhode Island State College, and LL.D. from Whittier College, Detroit City College, Birmingham College, Lafayette College, and Dickinson College.

Mr. Cooper was president of the senior class of 1906. His fraternal affiliations included membership in Alpha Sigma Phi, Phi Beta Kappa, Phi Delta Kappa, and Kappa Phi Kappa. He held membership in various national education associations, the American Association for the Advancement of Science, the Commonwealth Club of California, the American National Committee on International Intellectual Coöperation, and the National Advisory Council on Radio in Education. He was a member of the Episcopal Church.

Mr. Cooper's professional experience began in the Stockton High School in 1907 as an instructor in Latin and history. From 1910-1915 he was Head of the Department of History in Berkeley High School. Here he "made good" in every way, proving himself a man of "initiative and good judgment," "with the knack of holding his students up to rigid standards, yet keeping their good will so that they never questioned his fairness."

From 1915-1918 he was Head of the Social Studies Department and Supervisor of those subjects in the Oakland system. In his Oakland work he was held to be "the most brilliant of anyone among the history teachers in California secondary schools." Mr. Cooper was then called to the superintendency of the Piedmont schools where he served until 1921. In this position he won the complete confidence of the entire community, displaying "unusual ability in the organization of the schools into a harmonious and efficient unit."

From 1921-1926 he was Superintendent of Schools at Fresno, during which time he also acted as Instructor in Education at the Fresno State Teachers College. "As Superintendent," said the President of his Board, "he has been a distinct success. The department has been free from petty intrigues and rebellions, features that frequently attend school administrations. This has been due in very great measure to the diplomacy which he possesses to a marked degree."

In 1926 he was appointed Superintendent of the San Diego schools and served that city for about a year.

In 1927, when Will C. Wood laid down his great work to enter the banking field, Governor Young called Mr. Cooper to the State superintendency of California, from which office, after a two-year interval, he was called to the United States Commissionership of Education, the appointment being one of the last official acts of President Coolidge. This office he held until early in the Roosevelt administration. From *(Please turn to page 488)*

PHYSICAL AND BIOLOGICAL SCIENCES

A Symposium

PRINCIPLES AND ORGANIZATION OF THE SCIENCES IN SECONDARY SCHOOLS

ARTHUR GOULD

Deputy Superintendent, Division of Instruction and Curriculum,
Los Angeles City Schools

IF ONE general change is coming over the secondary curriculum more than any other, it is the tendency to lay less emphasis upon the acquisition of subject-matter for its own sake, and to put a new emphasis upon the acquisition of knowledge and the achievement of skills for the sake of more adequate living. The various fields of study in secondary schools are, of course, responding to this new challenge at varying rates. It is, for instance, rather to be expected that the social studies would meet this new challenge most quickly, and would be driven to modifications of objectives and procedures most rapidly, because the present world is so profoundly disturbed concerning all social and economic matters.

Why Change in Science Teaching Is Slow

It might be expected that the sciences would have responded to the new pressures with the same celerity as have the social sciences. Science and invention have brought about the technical age in which we live, and have, indeed, caused many of the upsets in equilibrium that we find in the world as we know it. If education in the scientific fields has not responded with expected readiness to new situations, it may possibly be due to the fact that not many years ago science teaching in the secondary schools made a very notable advance with the introduction of the laboratory method. This change, so far in advance of the procedures in other secondary fields, has satisfied alike administrators, teachers of the sciences, and patrons of the schools. It is, therefore, only to be expected that those interested in the teaching of science would be inclined to rest upon their laurels, and not scrutinize too closely any of the procedures involved. As a matter of fact, it has been almost a sacrilege in the field of science to question the desirability of the laboratory method, or to propose any diminution in the amount of money spent for equipment, or in the amount of time spent by students in this activity.

It is trite to remark that this is a technical age, but it is a fact of which we cannot lose sight. The profound effects of science and invention upon living should, in some way, produce some effect upon the teaching of the sciences in our secondary schools. One great problem, which the administrator has found in connection with any expansion in the time given to the teaching of the separate sciences, has been the difficulty of finding place, within the pupil's day or year, to give attention to a wider range of subjects, either scientific or otherwise. As a matter of fact, if, in the course of the six years of the junior and senior high schools, a child can find time to study three separate sciences, one of these being general science, he has done very well. In reality, most students find time for only two years of science.

Such a limitation necessarily placed upon the pupil's acquaintance with the various fields of science sends him forth from the secondary school with a very lop-sided and inadequate understanding of his physical environment. These limitations, however, are unavoidable as long as our science is blocked off in year units, each one more or less specialized in one limited field. If one of the great purposes of secondary education is to help the pupil to an adjustment with, and an understanding of, his physical environment, at the same time helping him to appreciate the influence of matters scientific and mechanical upon all phases of living, then certainly no study of one or two limited fields of science can be adequate to the job.

Broad Surveys vs. Specialized Sciences

It must be obvious, from the preceding discussion, that the answer to the question of science teaching at the present time will be found in broad and continuous surveys of the whole field involved, as it is related to ordinary everyday living. This suggested continuous and unspecialized science program should be part of the core curriculum from the early elementary grades to, and including, at least, the tenth grade. Right away the administrator will object that there is no time in the schedule of studies for any such continuous experiences in this realm, and he will be right if a full time daily program of five to six hours per week in these fields is being urged. On the other hand, a continuous series of experiences in these areas can be provided at the rate of two or three hours per week—not the easiest thing to schedule, but likewise, not beyond the realm of possibility. It is essential, however, that the efforts of the teacher be diverted away from the passive acquisition of detailed information into the development of basic concepts through a series of meaningful and challenging problems. Such work in science may at times involve some laboratory work. It should frequently involve demonstrations on the part of the teacher and students. It will necessarily include much visual material, since it is impossible to go where many manufacturing and scientific activities are carried on. Such work, in the fields of science, will capitalize the wealth of science materials which appear constantly in newspapers, periodicals, and free pamphlets of many kinds. It will bring to the classroom matters of scientific interest from the community. It should involve trips to places of significance and interest in the fields of science, manufacture, and invention.

Such a series of pupil activities in the field of science will bring children through our secondary schools having, instead of a limited and somewhat technical understanding of one or two fields of science, understandings of science which will include the whole range of human experience, and will give the student interrelated knowledge in these various fields such as he cannot now get. By the time he has reached the twelfth grade, not only will he know some chemistry or some physics, as well as some biology, but he may have, as well, some understanding of astronomy and geology. This will necessitate, for many teachers, a greatly modified point of view from the one now prevalent. It will require the setting forth of desirable goals expressed in terms of human values. Furthermore, it will be necessary to adopt perhaps greatly modified methods of teaching so as to make possible greater direct pupil participation even in the planning of procedures.

Criteria for Judging Science Teaching

The criteria by which the value of the work may be judged might, in terms of a recent bulletin from the office of the State Department of Education, be improvement in understandings, attitudes, interests, ability to interpret data, and to apply generalizations, sensitivity to significant problems, work habits, and essential knowledge.

As usual, the elementary schools seem to be on the move toward a realization of continuous experiences in the world of science much ahead of the secondary schools. Several cities have already moved to incorporate and unify the various science aspects of the elementary curriculum into a continuous core of work. The California State Department of Education is planning, during the coming months, to engage in a similar enterprise for the elementary schools of the State. The same educational philosophy that prompts activities of this sort in the elementary field is valid in the secondary school. Writing in a recent issue of the *Junior-Senior High School Clearing House,* G. V. Bruce, head of the science department of the New Jersey State Teachers College at Newark, has stated this general point of view very clearly:

> . . . may it not be said that science education can make an essential contribution to the good life in this socio-scientific era? It holds the key, first of all, to the physical needs of happy living for everybody. Pure air, wholesome water, adequate food and clothing, an attractive and comfortable home, means of communicating freely with our fellow men, and freedom to engage in congenial occupations are they. . . . It can furnish unending sources of pleasure which will sublimate the loss of labor and contribute materially to the enrichment of life. Science education may implant the mental attributes of intellectual honesty, open-mindedness, reserved judgment, criticalness, and habit of seeking casual relationships. These attributes will permit the light to penetrate the thin veneer of differentiations that have been imposed by political, social, and religious systems, and reveal that mankind is vastly more alike than it is different. We will then exhibit a greater willingness to judge by the individual rather than the class. Science education can do much to replace the apathy of traditional theology with a philosophy of life that is intellectually acceptable and emotionally satisfying, and, at the same time, can preserve and enhance the genuine essentials of religion.

Specialized Laboratory Science Will Have Its Place

It must not be thought, from the preceding, that specialized laboratory science of the sort that we have known in the secondary schools for the last forty or fifty years is to go by the boards and disappear. As a matter of fact, however, most of the specialized laboratory science that we now have is, in reality, vocational in character. It must still be retained to serve this same purpose. Its value will continue, first, for those students who have a vocational purpose in taking it, and, second, for those who, for general purposes or because of scientific interest or curiosity, will want to study more deeply into some phase of scientific work. Such a limitation of the use of our laboratory sciences will serve to bring about one highly desirable result. It will eliminate from the classes where these sciences are taught those who are there merely to meet a curricular prescription and secure a necessary credit. In other words, that problem will have been solved which science departments have heretofore attempted to meet by offering such courses as household chemistry or a modified brand of physics under some special name. Almost uniformly courses of this sort have been found unsatisfactory.

It must not be thought that we are yet in a position to advance to the full limit in such a science program as is proposed in this article. It is possible,

however, to go a considerable distance of the way, and the business of teachers and administrators should be to find how fast they can move toward a modification of the sort here proposed. Nor must it be thought that having once begun on a program of this sort we have achieved any final goal. New experiences of coming years will point the way toward new modifications of goals and procedures. One great asset that science has brought to our modern world has been its emphasis upon the open mind, and upon readiness to accept new evidence. These are the characteristics that should guide us in developments in the field of science teaching.

GENERALIZED SCIENCE INSTRUCTION IN THE SECONDARY SCHOOL

FRED ANIBAL
Stanford University

In our modern secondary school we should be providing a rich opportunity for the pupil to acquire a fund of scientific information, together with the ability to make use of this information in a way which is effective. Such activity is essential to intelligent behavior in a scientific age.

Our Unscientific Attitude Toward Life

That we have been unsuccessful in establishing effective habits of behavior in the past is clearly evidenced by the very unscientific way so many of our intelligent citizens meet their ordinary problems of life. Too many of us carry a horseshoe or a rabbit's foot. A black cat crossing the street in front of us can wreck an otherwise enjoyable trip. We are seriously upset if required to begin an important project on Friday the 13th. Just an ordinary scientific analysis of the situation would demonstrate the futility of our concern, but the unfortunate attitude would probably remain. A proper scientific training would probably have developed a more wholesome attitude.

The first public high school established in Boston in 1821 included the teaching of natural science in the curriculum. Very soon the function of the secondary school became that of preparation for college, and quite rapidly the various special sciences were suitably diluted and introduced into the curriculum, each in a special compartment with wholly artificial barriers erected between them. The world of science, in which the overwhelming majority of our high school pupils will be required to live, is not so neatly disintegrated. Problems of chemistry are not presented on Tuesday and Thursday and those of physics on Wednesday and Friday. Nor do we solve biological problems between nine and ten o'clock, and then consider the probabilities of the position and movement of electrons between one and two o'clock in the afternoon. The chances are quite certain that vital problems will continually require attention, and for satisfactory interpretation it will be necessary to use scientific information drawn from the many departments of both the living and non-living sciences.

The principles of science must be considered in connection with the whole social situation. The question of an adequate water supply in any community is a vital one. Whether the supply is drawn from wells or

reservoirs, weather conditions, involving principles of physics and astronomy, and soil structure, involving principles of geology and chemistry, are involved. In considering the purity of the supply, we require, in addition, a knowledge of living things, botanical and zoological, the bacteria and the protozoa. To be prepared to meet this very ordinary situation, shall we require the high school pupil to pursue courses in physics, chemistry, astronomy, geology, botany, zoology, and bacteriology? And if we should make such a heavy requirement, could we expect him to clear out the barriers between these special courses, and determine the relationships for himself?

Principles of Science Function in Daily Life Situations

We are now living in an age of marvelous scientific achievement, and we have every reason to believe that our present high school pupils will be required to take an active part in a world which will be even more completely regulated according to the developments of science. Our task, as teachers of science in the secondary school, is to prepare the pupil to take an active part in the unspecialized scientific activities of this new age. Properly adjusted, this future citizen will be a happy, well integrated personality, capable of enjoying an environment rich in scientific meaning. Inadequately trained, he will be a dupe of the unscrupulous exploiter, and a burden to himself and the community.

Every educated layman of the immediate future will be an even more active consumer of science than we are now. Science is revolutionizing our living conditions at an ever increasing rate. No human being can be a specialist in all the phases of science represented in ordinary life situations. Even the specialist in any one department of science is a consumer in the other scientific phases of his environment. Secondary school pupils will need to be trained as consumers of science, both in respect to the material things of their environment and in the method by which they meet and surmount their everyday problems.

Patrons of our public schools are alive to the possibilities of science, and eagerly demand information helpful in interpreting modern achievements. We, as teachers of science, are not making the most of our opportunities. Too often we are drawing our content for the high school courses from technical courses which the high school instructor pursued with a view to becoming a producer in some narrow field of science. Not more than two in a hundred of the high school pupils will ever become producers on the frontiers of scientific thought. Our primary task is to minister to the needs of the ninety-eight who will become our future average citizens.

Generalized Courses in Science Demanded

More generalized courses in science in our secondary schools are clearly demanded. Recent statistics indicate that enrollment in physics has shown a steady decline since 1890, and although chemistry has barely been holding steady, there has been only a 7 to 8 per cent enrollment in this course for the past four decades, in the face of an ever increasing interest in scientific development on the part of the general public. It has been cited that pupil enrollment in chemistry has increased over 800 per cent since the beginning of the century, but let it also be noted that in the same period the total secondary school population has increased more than 4,000 per cent. Botany and zoology have at the present time almost disap-

peared from our modern secondary school curriculum. In 1928 less than 2 per cent of the high school population was enrolled in either of these courses. Since the beginning of the century, during the three decades when enrollment in the special science courses was declining so rapidly, the more generalized courses in science were steadily gaining in popularity. General biology was introduced during the present century, and has steadily increased in enrollment, until, in 1928, over 13 per cent of the pupils were enrolled in this course. General science was introduced about the same time as biology, and in 1928 was being taught to about 17 per cent of those enrolled, which represents over one-half million high school pupils. The trend is unmistakable. The science departments of our secondary schools must meet the demands of a public which is becoming scientifically minded and demanding courses which will enable their children to meet the needs of a modern age in a way that they themselves have not been able to do as consumers of science.

Too often these generalized courses in science are looked upon by the teachers of specialized sciences as fusion courses. In their early beginnings it is true that such a mistake was often made by the pioneers who introduced the courses. Biology was a fusion of botany and zoology, and some of the early courses in general science were hodge-podges of physics, chemistry, and biology. Today these courses have progressed far beyond that stage. The environment is the source of content, and the barriers so jealously guarded by the special sciences, have entirely disappeared. A modern course in biology considers the development and functioning of living things, and there is no academic controversy as to whether a bacterium is a plant, or an animal, or in a class by itself. What difference does such a controversy make to a consumer of science who is interested in the community problem of the prevention of disease and the preservation of food?

The most recent generalized course to be introduced into the modern secondary school is the course in general physical science. Unfortunately it seems that this course is destined to experience the same painful stages of growth as its predecessors. In many cases the teachers of this course have tried to fuse chemistry and physics. With the whole rich environment of physical science to draw upon, there is no reason why this course should be limited to the principles of chemistry and physics. There are no barriers in nature between the manifestations of the principles of astronomy, geology, physics, chemistry, and other still more narrow compartments, which have been jealously set apart by the specialists.

There have been objections to the course in general physical science on the ground that no textbooks are available. No new course was ever introduced into the high school where the text was prepared before the course was ever taught. Such a procedure would be contrary to all the principles of modern education. One very probable reason for the decline in popularity of the special science courses has been the rigorous organization and standardization of subject matter without regard to locality or personnel. The physical environment is the source of content, and the organization is determined by the interests and needs of the community. The problem of developing this course is that of a teacher of children rather than that of a specialist in subject matter.

It is not easy to abandon our traditional courses in the specialized sciences and substitute new courses which

have no precedent in the curricula of the colleges and universities. Possibly there will always be a place in the larger secondary schools for these more technical courses. Undoubtedly such training has been valuable for the developing scientist. But our objectives in the modern secondary school are to provide the non-scientist with an opportunity for more enriched living in an essentially scientific environment. Teachers of science are neglecting a golden opportunity if they do not accept the challenge, and organize courses which will be functional in providing this much needed contact with a world rich in scientific achievement.

Eventually, the services of the wide-awake teacher of science are going to be enlisted in providing content for truly integrating courses in social living. In view of the trends in curriculum development, it would be excellent practice for science teachers to begin by modernizing the present science offering, and providing more generalized courses in science which will better meet the needs of a new age.

REORGANIZATION OF HIGH SCHOOL SCIENCE INSTRUCTION

ROY A. KNAPP
Principal, Antelope Valley Joint Union High School, Lancaster, California

REORGANIZING the instruction of science in the secondary schools is beset with many difficulties. The first of such difficulties is that of determining the goals or objectives. Assuming that the teacher has the necessary training and personality, the most important factor affecting the instruction given is doubtless that of clearly perceiving the aim or objective. The chief difficulty in this respect is the fact that there are so many different aims held up as worthy of attainment, as shown by the studies of Klopp[1], Tildsley[2], Bergen and others[3], and Hunter and Knapp[4]. Confusion is almost certain to exist in the minds of the teacher until he views the field of objectives as a whole, sees the relationship between them through some such technique as used by Knapp and Hunter[5], and finally brings certain clear, worth-while, obtainable objectives to the center of his consciousness, where they function in the reorganization of his high school science instruction.

Just as in football the goal determines each play, so also in education the goal must determine the selection of material and the sequence of each unit or play. But while the goal toward which one's energy is directed is an outstanding factor in determining the play chosen, it does not necessarily follow that the right plan will be chosen, nor that the goal will be made. One of the greatest problems of secondary education is to translate its theory into practical results. If we were to assume that all teachers of science had chosen objectives wisely,

[1]Klopp, W. J. "Aims and Objectives of General Science." Sierra Educational News 23:351; June, 1927.

[2]Tildsley, J. L. "Teaching Science as a Way of Life." *Bulletin of High Points* 8:17-23; October, 1928.

[3]Bergen, L. M., and others. "Objectives of Science Teaching." *School Science and Mathematics*

[4]Hunter, G. W. and Knapp, R. A. "Science Objectives at the Junior and Senior High School Level." *Science Education* 16:407-416; October, 1932.

[5]Knapp, R. A. and Hunter, G. W. "A Technique for the Discovery of Working Objectives in Science." *Science Education* 17:214-220; October, 1933.

we would still have to admit that most of them had not yet made the proper reorganization of their instructional methods so that the probability of attaining the aims set would be high. An excellent illustration of inconsistency between aim and practice is shown by a study made by Clem and Shoudy.[6] Data was obtained from about one-half of the teachers of high school science in New York State. It is interesting to note that over 70 per cent of the teachers said they thought the aim of laboratory teaching was primarily to develop a scientific attitude of mind, yet over 78 per cent of the same teachers required all students to perform the same experiment, and about 50 per cent of them thought the laboratory procedure should be to check established laws and reactions. While progressive educators would highly commend the objective of these teachers, it is difficult for the writer to associate the mere checking of established laws, and the requirement that all students work the same experiments, with the successful attainment of the aim to develop a scientific attitude of mind.

While the *Thirty-first Yearbook*[7] sets forth thirty-eight principles, generalizations or, as the committee calls them, "Big Ideas" for the guidance of teachers in selecting their specific objectives, it is the opinion of the writer that there is need of a more practical educational formula to bring about the needed reorganization of science instruction. Knowledge of facts, principles, and generalizations are important as they always have been and always will be, but they are of concern chiefly as *means* to an *end*, and *not* as an end in themselves. When science teachers begin to teach for mastery of the scientific method, the development of a scientific attitude toward all problems, and the establishment of scientific thinking habits, then facts and generalizations will fall into their proper places, and will begin to function in the life of the learner.

In his recent book, Downing[8] devotes one chapter to skill in scientific thinking. He emphasizes this skill as a desirable outcome of science instruction, and yet he almost entirely neglects to mention the inductive approach to generalizations in his effort to urge that the principle be mastered and that extensive practice be given in its application.

On the other hand, Morrison[9] explains why it is that some individuals can supply principles to everyday problems when they arise, while others can talk only the "jargon of the trade." Morrison says that the difference is one of assimilation, thus, in his plan of teaching, he provides a special assimilative period where students are given an opportunity to rediscover established principles and to see new relationships which will lead to new generalizations. Hunter,[10] likewise, emphasizes the inductive, developmental approach, and says that emphasis on generalizations as such neglects to emphasize sufficiently the means by which these generalizations are to be won.

Mastery of Scientific Thinking

It is the thesis of the writer that high school science instruction should aim directly at mastery of the scientific method and the establishment of

[6] Clem, O. M. and Shoudy, H. C. "The Laboratory Technique in Secondary Science Teaching." *School Science and Mathematics* 34:603-609; June, 1934.

[7] *Thirty-first Yearbook*. Part I. "A Program of Teaching Science." National Society for the Study of Education. Public School Publishing Company, Bloomington, Illinois, 1932. pp. 53-55.

[8] Downing, E. R. *An Introduction to the Teaching of Science*. University of Chicago Press, 1934. 258 pp.

[9] Morrison, H. C. *The Practice of Teaching in the Secondary Schools*. University of Chicago Press, 1931. 680 pp.

[10] Hunter, G. W. *Science Teaching*. American Book Company, 1934. 552 pp.

scientific thinking habits. It is further his thesis that testing should be designed, not merely to see whether certain facts and principles have been memorized, but to see whether progress has been made toward the goal set. Most teachers find it easy to rationalize that their teaching is accomplishing this objective or that aim, but few have developed a testing program that really tests for any objective other than the retention of factual information.

Boys and girls naturally want to know about a variety of things in their community. They want to know *what* certain things are. They want to know *how* certain things work. Especially in the higher grades they want to know *why* certain things act as they do. If each member of a class is allowed to submit a list of questions about these interests in his community, the instructor will have a starting point, without looking at some textbook, or some list of principles, which may be excellent for some other section of the nation. From the list of questions the instructor will find that they group themselves about various scientific principles. The largest group which has some one principle as a focal point may well indicate the generalization in which the class will have the highest natural interest at that time.

The questions of the group selected will suggest many problems and activities for their solution. There will be enough activities so that every student may choose the one in which he is most interested, and there will be no need of any two students having to work at the same problem, unless it be their mutual interest in it. This laboratory will have little use for apparatus which is costly, factory-made, and too fragile for students to use. It will have little use for precision measurements. It will be a place where students may get worth-while experiences, where they may find out facts for themselves, where they may construct apparatus, and where they may solve problems.

This laboratory will be a place not only where scientific experiences prevail, but also where citizenship has an opportunity to function. Each student, in making an investigation, has a responsibility to the rest of the class to present his results in a brief, concise, interesting way. This may be done in a discussion period. If the class is especially interested in his problem, he must be responsible for the full explanation. On the other hand, this same student has a right to know the results of his fellow students' endeavors along the line of investigation which they followed. Out of these discussional meetings will come many "Why" questions, and, due to the relationship between the different problems, it will soon become evident that there is one outstanding answer which applies many times. Through this inductive approach the generalization will formulate in the pupil's mind in a natural way, and it will have a practical meaning to him. In other words, the principles will have been digested, assimilated, and will have become a part of the pupil's thinking, ready to function deductively in the explanation of community problems.

Because a new tool has been obtained, and it use has been mastered, does not mean that it can be used skillfully. Likewise, with a new generalization, practice in its use will develop skill in its use, and time for such practice must be furnished.

Neither a community nor an industrial plant has one special place for the solution of its problems which depend upon physical principles, another place for the problems to be

solved by biological principles, and another place for the solution of problems involving chemical principles. As a matter of fact, many principles are more broad than the limits of any one science. If problems are to be solved, and if generalizations are to be given their broadest interpretation, the sharp lines of demarcation between the sciences will need to break down in the secondary school.

With subject-matter lines broken down, old ideas of laboratory methods adjusted, and primary emphasis placed upon learning to think, rather than upon learning to quote unassimilated facts and principles, consumer problems of health, sanitation, quality of merchandise, and understanding of environment may take the place of the old time producer problems which have monopolized high school science in the past, and which have driven many pupils from experiences which should rightfully be theirs.

Reorganization of high school science instruction must take its departure from new vital objectives. The logical approach must give way to the psychological approach. Consumer problems must take the place of producer problems. The laboratory must be a place for discovery, not a place merely for checking established laws. Boundary lines must disappear from the various sciences. Answers to the practical questions which the boys and girls of a given class are asking must be the starting point. When scientific thinking habits form the goal, and teaching is adjusted so end tests show that strides have been made toward the goal, then reorganization will have taken place, either along the lines suggested in this paper, or some other lines.

WILLIAM JOHN COOPER

(Continued from frontispiece)

1933 until his death* he was Lecturer in Education at George Washington University, and during the summer of 1935 he held an appointment as Lecturer in Education at the University of Michigan.

Few Commissioners, in fact few leaders in public education have received such high appraisal for great and enduring accomplishment, as the following, selected from among many tributes, will indicate:

From PRESIDENT L. D. COFFMAN, of the University of Minnesota: "I have found him to have the highest personal and professional ideals, administrative ability of a high order, and to have sensible and progressive convictions with regard to public education. The Office of Education of the United States Department of the Interior has had more responsible work to perform, more significant investigations to make, more difficult and important problems to solve during his administration than it has had during the preceding twenty years. All these matters have been disposed of in a way that reflects credit upon the leadership of Dr. Cooper."

From PRESIDENT HENRY SUZZALLO, of the Carnegie Foundation for the Advancement of Teaching: "Dr. Cooper's administration of the United States Office of Education is generally recognized by the profession as having been the best we have had in our history. He is scholarly in his whole attack on educational problems, and is particularly effective in his analysis of the historical, political, economic, and social elements in the educational situation."

From PROFESSOR CHARLES H. JUDD, of the University of Chicago: "He has been, in my judgment, the most efficient Commissioner of Education that the United States has had in a generation. He has been far-sighted and wise in his policies, courageous in execution, untiring in industry and above reproach in all personal qualities."

From PROFESSOR L. V. KOOS, of the University of Chicago: "I esteem him highly for his scholarly appreciations and his ability to map out projects, to handle men, and in general to bring things to pass. These qualities, with his most acceptable personal make-up are among the factors that have made him one of the country's educational leaders."

It is a matter of considerable pride to the University, as well as to the State of California, that Mr. Copoer carried on the functions of the Office of Education as the eighth Commissioner in a period of sixty-six years, and performed this work with a distinction comparable to the eminent men who had been his predecessors.

*Dr. Cooper passed away at Kearney, Nebraska, September 19, 1935, while en route to California, after completing his work at the University of Michigan.

THE IMPROVEMENT OF JUNIOR COLLEGE PHYSICAL SCIENCE TEACHING

W. C. SHAVER AND C. F. ECKELS
Pasadena Junior College

"TO EXIST is to change," expresses a concept fundamental to every branch of science. Since the process of change is essential to all physical existence, and to every life activity, it most certainly characterizes the complex relations of civilized society.

There are leaders in various phases of life who refuse to recognize the need for modifying any procedure, even in a world of change, but who attach themselves firmly to the traditions of the past, and refuse to acknowledge the existence of the waves and currents sweeping by them. Occasionally, we find individuals, in the business of science education, who, readily admit that changes in arrangement of subject-matter, methods, and objectives have been necessary in the past, but who seem to believe that the curriculum is now canonized, and that criticism of its content and methods is little short of blasphemy.

The majority of science teachers, however, recognize the necessity of watching carefully the trends in the life of today which call for changes in educational procedure. They do not rush wildly to follow passing fads or fancies, but, with calm, scientific judgment, and open minds, try to learn what changes in educational experiences will result in greater good.

Each branch of science has largely devoted itself, in the not remote past, to the teaching of a selected body of knowledge, and to the development of the particular techniques and skills pertaining to its field. For instance, chemistry, judging from its content, has held to the objective of producing good chemists. Perhaps, thirty years ago, no objective could have been more commendable, and it still has an important place. But today enormous numbers of young people are being given instruction in chemistry, only a few of whom will ever become professional chemists. Some will go into chemistry teaching, and will be most successful in producing more chemistry teachers like themselves. The majority will never again use the instruments, materials, and techniques peculiar to the technical study of chemistry.

Would it not be more profitable to use less time, for this particular group, in the development of technical skills, and more time in considering the ways in which chemical science has helped to mould our present civilization? The criticism has been made that such types of teaching do not allow the possibility of developing the subject as a real science. The teacher, who has made a conscientious effort to trace out the impact of scientific discoveries and principles upon the advance of human thought and betterment, will find a new approach through which major scientific concepts may be presented. The insight and appreciation thus gained is more defensible as general education than a well ordered technical subject.

This is truly an age of triumph for science-technology, but authorities on human culture point out that it is not yet an age of science-culture. In many of the aspects of present day civilization the patterns of the past are jealously guarded, and criticism of them is bitterly resented. There are, at present, political and financial

leaders of great power who, in mental outlook, belong to the days of the bow and arrow. The control of vast material resources is no more suited to their state of culture than the use of dynamite caps as toys for children. Those influences in the world, which at present threaten the continuance of democratic government, may, perhaps, be averted by universal education of a type which seeks to bring unity to diverging trends of thought and action.

Sciences Must Nurture the Soul As Well As the Body

The objectives of science teaching, directed toward the development of a science-technology, have been successful beyond the dreams of their proponents. Science and technology have rapidly changed the material factors of civilization. The soul has been unable to keep pace with the growth of the body. The objectives of science education must be broadened so that they may play their part in helping to keep the various aspects of social life growing in phase with each other.

Science has the reputation of clinging stubbornly to its own field, and has held itself aloof, proudly, withal, from contamination by other forms of human thought. Progressive leaders in scientific education today emphasize the need for a broad outlook on the part of science instructors. There will always be an important place for those best qualified to pass on to the next generation the techniques of each branch of science. There is a still larger field for those who can interpret science to the general public in ways which make for well-balanced, intelligent living.

The establishment of junior colleges in many communities has made it possible for increasing numbers of people to avail themselves of the opportunities for education on this level. In the beginning, curriculum and methods were set up which were patterned on traditional procedures, not the best, necessarily, for its broadened constituency. The junior college lies close to the life of the community which it serves, and is in an excellent position to adapt its curriculum to vital needs. The four-year type of junior college, in particular, has a splendid opportunity for developing an integrated type of educational experience for the development of intelligent citizenship.

The tendency in the junior college science field is to set up offerings better suited to the needs of students. The selection of subject materials for these courses, and the philosophy prompting their construction, constitute major improvements. The junior college science curriculum is achieving its own identity in fulfilling objectives characteristic of the institution of which it is a part.

One of the most promising tendencies in the development of science curricula is the great amount of experimentation in progress. The physical science courses, the science surveys, and the liberalized non-technical chemistry and physics offerings require new methods of presentation. The classical debate between Laboratory and Demonstration is being answered in a dramatic way in many sections of the country. Complete abandonment of science laboratories would certainly represent a radical position. To remove all opportunity to experience the method by which science developed and ancient authority was broken, would leave an appreciation undeveloped. More significant laboratory experience, combined with well selected demonstration, would lead to more desirable outcomes.

The museum type experience should find a place in our improved technique. Displays, such as those on exhibit at the Griffith Park Planetarium in Los Angeles, or at the University of Chicago museum, or those exhibited at the World's Fair in Chicago, have a general educational value not to be ignored.

Improved method of science instruction should make more liberal use of visual aids. A library of 16 mm. films is just as important to the learning experience as an adequate reference shelf. The use of 16 mm. film is more general in the East than in the West. The agencies supplying the East, in most cases, extend their rental service to the coast. The "1,000 and One" film list, published by Educational Screen, 64 E. Lake Street, Chicago, gives a good list of scientific films. The University of Chicago is supervising the preparation of scientific films. Study of a number of film sources reveals an abundant supply from which to select. The 16 mm. silent film, with animated interpretations and explanations, seems most effective.

Film slides, slides, projection mats, and posters round out a general list of visual aids of great value in science instruction. These visual aids are not new techniques. A more general use, however, of the best from each type would improve our offerings.

Serious thought and effort could be applied to improvement of measurement techniques. The objective test usually devised for science classes measures technical facts. Tests for the evaluation of attitudes, and the measurement of broad general relationships, are admittedly difficult to prepare. Improved method should, however, include more meaningful measurement of outcomes.

The improvement of our junior college physical science subjects involves a critical analysis of our content and method. The discarding of materials not defensible as general education, and the organization of a curriculum for non-technical students, constitute a great improvement in education. The engineering and technical science courses in the junior college have reached a commendable peak of efficiency, as proved by the acceptance of credits in advanced institutions. This offering has developed with years of experience, and it fully satisfies the needs of those few students definitely preparing for technical work. The organization of adequate non-technical courses in physical science is a more recent venture. The many attendant problems, which this program creates, are unimportant if the real outcomes more nearly agree with the needs of most junior college students.

A SOUND APPROACH TO CHEMISTRY TEACHING

GEORGE I. LINN
Sacramento Senior High School

ONE of the essentials in recent trends at curriculum reconstruction, improvement in the counseling program, expansion of the activities program, and improvement in teaching technique has been an effort to provide sound approaches.

Down through the ages vast bridges have been built across the floe of human knowledge to make it possible for our boys and girls to cross from the roads and byways of ignorance and doubt over onto the broad highway of understanding. Many of these bridges have become inadequate, and, in consequence, repairs have become necessary, or the bridge has been built onto, or it has been torn down and a new structure has been started from bedrock. All too often the approaches have been afterfills, with the result that our young people have had difficulty in either getting started on their journey or have found pitfalls before its end. Not only must our educational engineers correct the bridgework, but they must make sure that the approaches are sound. Without trying to carry the simile into too much detail, this paper will set forth some of the recent developments in curriculum reconstruction, and the broadening of teaching methods in chemistry.

The fundamentals of chemistry are the same the world over. These fundamentals include a study of physical and chemical changes; a study of the physical and chemical properties of elements, compounds, and mixtures; a study of their occurrence, distribution, preparation, and uses by man and by nature; and a study of the various chemical relationships that account for, and are used to explain, the various processes of chemistry. These fundamentals form the bedrock for any superstructure that is needed.

Tailor-made Chemistry a Misfit

For the most part, chemistry, like many of our traditional high school subjects, has been tailor-made and handed down in textbooks. The selection and organization of the material have been determined by artificial standards, and from the viewpoint of those who think of chemistry as a vocation. Neither the teachers nor the pupils concerned have had either a part in the establishment of the objectives, or in the selection and organization of the materials. This condition results in textbook teaching and a lesson-to-be-learned process. Pupils wrestle with facts arrived at by trained experts who have spent years in research. In consequence, they are prevented from learning through experience how the processes are arrived at by which scientific facts are determined. For a relatively few academically-minded pupils, this superstructure has sufficed, and may continue to satisfy, principally because the emphasis is upon the subject as an end in itself.

But for the vast group of our young people, such a superstructure, and the methods attending its use, are neither sound nor are desired results acquired. Most young people are not interested in chemistry as a vocation, (and there would be no place for them in industry if they were), nor do they have the ability to absorb abstract knowledge. This condition has been recognized the country over, especially since the high school has become the "People's College"—an idea that

has swept America during the past two decades. What is needed is a broadening of the conception of the purpose of chemistry as a subject for the vast percentage of youth; namely, the subject is a means to an end in the educational process and not an end in itself. These findings lead to the conclusion that the problem involves both curriculum reconstruction as well as a change in teaching methods.

What, then, are the guiding principles that must be used as a criteria in developing the curriculum? They are: (1) it must be kept *within the interests of the pupils;* (2) it must be kept within the *ability and understanding* of the pupils; and (3) it must deal with *common life experiences of a chemical nature.* In brief, the chief objective should be to help the pupil to adapt himself understandingly to his chemical environment.

What a Successful Technique Includes

Efforts have been made to modify the traditional curriculum to meet these conditions, but have ended in nothing more than lowering the requirements for passing the course. A *rebuilding* of the curriculum has, therefore, become necessary, and efforts along this line seem to be producing satisfactory results. And the approach? It is pupil participation. A successful technique in curriculum construction in chemistry includes: (1) the questionnaire method in which pupils indicate their interests and the problems of a chemical nature in their lives that they want to study; (2) the pupil committee method in which the pupil responses are sorted, summarized and listed for study; and (3) the classification method in which the whole class coöperates in classifying topics and problems for study, and in determining the order of units and divisions for study. In addition to this technique, a training program is carried on designed to meet pupil needs and to foster the enlargement of interests. This training program includes training in the use of the senses (perception), training in improved study methods, training in the use of various sources of information, training in the scientific method of thinking, and training in the processes by which mankind amasses and uses knowledge scientifically. The objectives of such a course become creative and appreciative as well as informational—creative in that chemistry training should make possible a useful and pleasurable avocation, appreciative in that pupils will learn to recognize the part chemistry plays in the everyday life of an average American, and informational in the broader sense that pupils will acquire scientific knowledge to aid them in solving environmental problems.

What a Chemistry Curriculum Embraces

Resulting from the use of this procedure has been the development of a chemistry curriculum which embraces the following organization:

1. An introductory division in which a study is made of the development of science and chemistry in particular, the scope of chemistry, the work of the chemists, and the relation of chemistry to our daily needs.
2. A division on laboratory technique in which pupils are trained to recognize and to use laboratory apparatus, and the various physical processes that one must understand in this new environment, namely, the laboratory.
3. Three other divisions in which the common primary essentials to life, namely air, water, and food, are grouped for study.
4. A miscellaneous division in which the secondary essentials and supplementary environmental factors are listed. This division includes fuels, paints, varnishes, bleaching agents, dyes, cleaning solvents, etc.

This, then, has become the superstructure, or core curriculum, that culminates several years of pupil-teacher coöperation in its development. The units of instructions for each division occupy more space than is available for elaboration, but, nevertheless, form an integral part of the course.

Methods Used Most Include Pupil Participation

In the field of method, the approach should also be from the standpoint of pupil participation. One of the chief criticisms of our mass educational program is that pupils are taught theories rather than practical knowledge, that pupils perform assigned lessons rather than have the opportunity to develop initiative in selecting their tasks, and that they do not have sufficient opportunity for self-expression. The new order requires that pupils shall be permitted and encouraged to develop their own theories, and to test them out in the laboratory of personal experience; that pupils shall have opportunity for selecting problems for study, and that they shall be given opportunity for self-expression in the classroom as well as on the playground. One of the chief supporting ideas for the new order is that an increasing amount of experience is needed by most young people, due to limited chance for experience outside of school. Indeed, it is a profound opportunity for the teacher to help pupils to learn to think scientifically. Since most thinking involves problem solving, what better opportunity is there than to use pupil problems—the problems they select from their environment? Surely, scientific thinking is not acquired alone by reading what some one else has written, or by memorizing facts established by the experts. Again, pupil participation is the approach in listing, classifying, and selecting problems for group or individual study. Plans of procedure in the form of work sheets have been found helpful, but special training must be given in developing the plan of scientific thinking. This training includes:

1. Recognition that a problem exists;
2. Statement of the problem so that it can be solved;
3. Collection and interpretation of data necessary to solve the problem, which involves references, conferences, lectures, experiments, and use of drawings, charts, graphs, etc.;
4. A summary and statement of conclusion; and,
5. Use of the conclusion in solving other problems. This last step is very important, and is too often omitted or not recognized as part of the scientific method; however, the use to which the conclusion is put determines, in no small measure, the value of the method.

Such a program requires a willingness on the part of the teacher to provide time and opportunity for pupil participation. The development of a "free day" plan, individual contracts, and term projects each semester, or once a year, have been found feasible. The basic idea is individual instruction in which individual needs can be met, individual interest can find expression, and individual problems can be solved. Prior to free days, pupils select their problems, state them so they can be solved, and prepare the procedure for solving them. On the free day, they carry out the procedure, prepare their report, draw conclusions, and, on a later day, they present their completed report to the class as a whole. This plan improves with use, and prepares the way for the contracts, and for creative accomplishments in connection with term projects. For those whose chosen problem does not require experimentation, but rather a library situation, provision is made to accommodate them also.

The contracts are organized on a self-administered plan in which the pupils select their contract, search for material and information, select and perform experiments, and take the contract tests according to their interests, needs, and desires. To insure proper use of time, energy, and materials, minimum standards are agreed upon. In this situation, the teacher is in a strategic position. His main job is to keep out of the way, and to be available for consultation, assistance, and encouragement when needed. He must not be hampered with details that pupil monitors can care for, and he must assume a conciliatory attitude. To avoid some of the obstacles to a program of this sort, classes must be limited to the average capacity of the room, adequate supplies and reference material must be available equally to all, and pupils must be trained in proper human relationships.

The term project forms the basis of much out-of-class work. It is essential that specific training be given, early in the term, in the selection, study, preparation, and organization of term projects, if best results are to be obtained. A most helpful procedure is to permit each member of the class to browse through a number of term reports kept from previous semesters, and to have them choose three or four for a critical study. An evaluating procedure is agreed upon, and class time is used for the study. Oral reports are given, and when one is given that includes all the essentials of a satisfactory report, it becomes the standard for the group. It must show why the particular papers were chosen, the method of evaluating, the results of the evaluation, a summary of the findings, a statement of a general conclusion, and a forecast as to how this training will be used. This training is helpful, not only for term projects, but for all reports, whether written or oral, and has become an accepted part of the procedure of pupil participation in the educational process in chemistry.

The Role of Tests

To insure satisfactory results, a testing program must be built to make sure that the objectives of the course are being realized. Not fewer examinations, but more of the new type tests, become one of the essential parts of the teaching technique. These tests contain four sections, namely, multiple choice, completion, modified true-false, and matching tests. These tests must be reliable, valid, and objective, but no need has been found for norm standardization, because score range and distribution tell the story. Their use is to insure mastery of the fundamentals, but, manifestly, they cannot measure the scope of the pupil's understanding and increased ability. Here, again, pupil participation is a valuable way to determine the important points to be included in each test. The technique is to request (1) that pupils hand in what they consider to be the most important ten (or some other like number) questions; (2) that a committee select the questions appearing most frequently, and those that seem to be proper tests of the fundamentals and objectives; and (3) that the teacher cast these questions into the new type form prior to mimeographing. Not only does this method provide a valuable review, but it causes pupils to take a much more wholesome and enthusiastic attitude toward tests.

Chemistry is such a broad subject that broad-gauged methods, in both curriculum construction and methods of instruction, must be used to permit of creative and exploratory activity within the interests and capacity of the pupils and closely related to their

experiences. Such fundamentals are recognized as sound. Pupil participation is an approach that creates a proprietary interest in the classroom, and places a premium upon the development of worthy and attainable ideals; a wholesome attitude toward work and accomplishment; a development of sound habits of study, experimentation, and thinking; a renewed interest in one's environment and in human nature; a recognition of the principles of scientific effort; and a basic knowledge of the subject. This, coupled with the beneficial effects of group discussions, pupil-teacher demonstrations, and other forms of group work, provides a well rounded program.

References:

Unpublished curriculum studies in chemistry; unpublished curriculum committee reports; and unpublished notes on chemistry curriculum conferences at the Sacramento Senior High School.

Conference groups:

S. L. Stoner, Chairman Science Department.
A. S. Loomer, Chemistry instructor.
Clifford A. Bly, Chemistry instructor.
George I. Linn, Chemistry instructor.
Ivan H. Linder, Vice-Principal.
George C. Jensen, Principal.
J. R. Overturf, Deputy Superintendent in charge of curriculum development.

A PLAN OF GUIDANCE FOR A JUNIOR COLLEGE

ROBERT J. PARKER
San Francisco Junior College

THE PURPOSE of this article is to present for the junior colleges a plan of guidance which will give definite and intelligent counseling to students, thereby directing them towards the station in life for which they seem best fitted. It is the opinion of the writer that, in these times of unemployment and newly created leisure, a program of guidance is more necessary than ever before.

Importance of the Guidance Function

Guidance is the foundation upon which the junior college is built. When effective, counseling tends to underlie and permeate all other functions. It is classed as being both educational and vocational. In the end, however, all guidance is primarily vocational, or should have some influence on the student's ultimate working life. "Educational guidance is that part of the whole program that deals with the selection of a course of study and subjects therein that will best fulfill the vocational objective of the student, be it a profession or a trade."[1]

Guidance, Professor Eells tells us, is a difficult matter at any level. There is no formula to apply to all cases of individuals or junior colleges. Each concerned must work out its own salvation.[2]

Most educators agree on the general objectives of guidance. For example, Professor Eells lists four main objectives. The junior college should offer (1) vocational guidance, (2) educational guidance, (3) social guidance, and (4) physical guidance.[3]

To my mind, the junior college should have three specific aims: (1) to prepare and guide students to the institutions of higher learning, (2) to equip with at least a tentative vocation, students not interested in or capable of further academic training, and (3) to develop in every student a social intelligence.[4] A new trend in educational thinking. This last aim

[1]H. S. Morehead, "Guidance in the Monterey High School," in *The California Quarterly of Secondary Education*, VI, 397.
[2]W. C. Eells, *The Junior College*, 316.
[3]*Ibid.*, 318-19.
[4]For further information on this subject cf. Grace Bird, "Brief Report on a Core Course for Bakersfield Junior College," in *Report of the Curriculum Commission of the Western Association of Colleges and Secondary Schools* (March 29, 1934), 13-16.

seems especially essential for those students whose college career terminates at the end of two years.

The Junior College Catalogue

The first step in the guidance program should be the construction of an adequate handbook of information *for the students* of the institution. This handbook's primary purpose is to acquaint students with the functioning of the institution, the organization of its student activities, and its curricula offerings. Any one of the catalogues published by California junior colleges may serve as a guide for the construction of a catalogue.

The Guidance Staff

The guidance staff of a junior college may be organized in one of two ways. If the enrollment is large it is advisable to delegate the work to a director of guidance whose staff will consist of the dean of women, the dean of men, and one instructor from each department. Care should be exercised in the choice of the director of guidance. Whether the person is a man or woman is little importance if his personality and training are such that he will invite the confidence of students and guide them wisely. Likewise the selection of the counselor in each department should be made with these qualifications in mind. Students should be divided into groups. Those interested in specific fields will be guided by the counselor in that department. Those who are problem cases or who are undecided as to where their major interests lie should be handled by the director of guidance, the dean of women, or the dean of men. In the case of small junior colleges counseling can be directed by the dean of the college. His staff will include the dean of women, the dean of men, and perhaps a few wisely-selected instructors. The size of the staff will, of necessity, depend upon the number of students to be counseled.

The guidance staff should be composed of men and women who understand the academic requirements of the junior college and the universities, and who are well-acquainted with the courses essential for vocations in which the junior college offers training. They should understand the problems of young people sufficiently well to be able to aid students in their adjustment.

The part of the dean of women in the guidance program is that of a personal adviser to all women students. The subjects on which she will be called to give advice will vary from educational ones to those of a social and extra-curricular nature. Under the direction of the dean of the college or the chairman of guidance she will be expected to direct women students along the educational courses they wish to pursue. She should be a guide for the women in the matter of dress, conduct, and etiquette. Through her office may be handled the employment of women students. By reason of her duties the dean of women plays a very important part in the guidance program and she should, therefore, be a woman of broad cultural training and the possessor of an understanding and sympathetic attitude towards students.

The duties of the dean of men will coincide very largely with those of the dean of women. Specifically, he should be the adviser for the men of the college. He will assist in counseling men students regarding programs. Through his office the employment of men students is ordinarily handled. In small junior colleges the dean of women and the dean of men very often teach several classes because their duties as deans do not require full-time work.

Regardless of the size of the institution, the dean of the college, in a supervisory capacity, should make every effort to see that his guidance staff is functioning properly. The counselors by group guidance should help the students realize the importance of learning to coöperate effectively in group activities through constructive thinking. By the use of personal interviews the counselors should assist the individual students in finding themselves educationally, vocationally, and socially.[5] In the last analysis, the counselors must give the student a "push" or a certain enthusiasm for hard work. Reduced to very homely terms, guidance is merely the inspiration a person is able to pass on to his fellow-man. It embodies extreme humanitarianism and an understanding of young people's natures and ambitions. Every member of the faculty must coöperate with the guidance staff if the program is to be effective. As Smith tells us, "Every person in the institution should be made to feel responsible for guidance."[6] Guidance should start in each teacher's classroom. Many problems can be solved by the competent instructor and many "pushes" given individual students.

Arrangement of Student Programs

After the machinery of guidance has been set up, the guidance staff is faced with the problem of arranging student programs. For the purpose of this discussion, new and old students will be dealt with separately.

When a student enters a junior college in September for the first time, certain information must be gathered concerning him before any program can be arranged. For the most part information regarding students comes from three sources: (1) from previous school records, (2) from records of measurement, and (3) from the students themselves.[7] Previous school records and records of measurements should be in the hands of the counselor to whom the new student is assigned. The counselor should go over these records in his first interview with the student. The primary objects of this interview will be: (1) to become acquainted with the student in a friendly, informal manner, (2) to have him fill out a Personnel Card, (3) to find out from the student his occupational plans or ambitions, (4) to make out a program. As Dr. Merton E. Hill once said, "The junior college is a finishing school for some and a continuation school for others. There are many young people who enter junior college and continue for one or two years with one point of view—further preparation for occupational life."[8]

As a result of the examination of the student's past records and the counselor's interview the student should be temporarily classified. One method which seems to be clear and fair is that of dividing students into groups based on courses the students are pursuing. Group I will include students who are capable of, and interested in, preparing for junior standing in an institution of higher learning. Group II will include students who are preparing for junior college graduation. Group III will include students, irrespective of former academic training, who wish to attend classes merely for the purpose of increasing their general knowledge or for the purpose of undertaking special vocational studies.

[5] "Handbook for Counselors, Chapter V," in *The California Quarterly of Secondary Education*, VI, 331.

[6] Lewis W. Smith, "Counselling and Guidance Problems in the Junior College," in *The California Quarterly of Secondary Education*, V. 346.

[7] Leonard V. Koos and Grayson F. Kefauver, *Guidance in Secondary Schools*, 380.

[8] Merton E. Hill, "The Functions of the Junior College," in *The California Quarterly of Secondary Education*, II, 113-117.

In making out the program of the new student the counselor must bear in mind several important things. If the student shows high school deficiencies for university entrance, but has apparent ability and the determination to go on to college after his junior college preparation, his course should be so outlined as to overcome high school deficiencies. On the other hand, if it would take years to overcome such deficiencies, the student should be diplomatically directed into a terminal course to prepare himself for the occupation in which he is most interested.

The treatment of students who have been in the junior college a semester or more will be a little different. Previously they will have been assigned to a counselor most interested in the field in which the student is doing his work. Before the close of each semester, all old students should have interviews with their counselors to make out tentative programs for their next semester's work. The majority of them will already have been classified in one of the three groups, so that unless they have made a radical change in the kind of work which they wish to pursue in junior college, the task of setting up a tentative program for them will be merely one of being sure they are fulfilling requirements and choosing electives wisely.

Prior to the opening of school two or three days should be set aside for the actual process of registration. Much of the work as far as old students are concerned will be mere routine if tentative programs have been made out in advance. Mere adjustment and minor changes will be all that need be done for these students. The real emphasis should be upon those students entering the school for the first time. They will be assigned counselors and be given plenty of time and consideration so that their first semester may be as worthwhile as possible. At this time all students will fill out final schedules of programs, pay fees, and arrange for physical examinations.

In the planning of programs for either old or new students the results of psychological examinations are important. It is more effective if these tests can be given before the opening of school, so that counselors of new students may have the results at hand. This, however, is not always possible, but the tests should be given as soon after the opening of school as possible. In this way no students will be in school more than a semester before the results of these tests are available to their counselors. Whether one or more tests is used will depend upon the individual college, but some approximate record of a student's intelligence and aptitude is essential to effective counseling.

A Course in Orientation

The Orientation course should be the basic foundation for all junior college group guidance. Harbeson says:

> The legitimate aims of a course in group counseling are:
>
> 1. The framing of a working philosophy of life put in terms of worthy life objectives.
> 2. Adjustment to college environment and life.
> 3. Improvement in methods of study.
> 4. Training in thinking for one's self—involving the use of the scientific method.
> 5. Training in the use of the library.
> 6. Self-knowledge and self-development.
> 7. Avocational adjustment.
> 8. Educational guidance.
> 9. Vocational guidance.
> 10. Standards of citizenship.
> 11. Development within the student of a technique of self-direction.[9]

The course in Orientation is designed as the foundation for effective

[9] John W. Harbeson, A Suggested Plan of Guidance for Junior Colleges in *Bulletin, Department of Secondary School Principals of the N. E. A.*, 348-59 (March, 1929).

guidance. However, "the program of guidance in any institution must be broader than any program of extension courses no matter how comprehensive."[10] The other elements described above must be present. The course may be so organized that the entire group meets once a week for a lecture, and for the other class period is divided into small discussion groups. The ideal plan would be to have the sections no larger than 20 to 25 each so that both class hours could be given over largely to discussion.

The Junior College Offering

Every program of guidance must have as a foundation a well-planned and well-balanced curriculum. The director of guidance, whoever he is, should work with the curriculum committee towards this end. By reason of the findings of his guidance staff, the director will be aware of the needs and desires of the student group.

The organization of the offering, as far as guidance is concerned, is chiefly serviceable in displaying educational and vocational opportunities in such a way that the student is made cognizant of them, and, by means of flexibility, in affording the student the opportunity, if he requires it, for actual contact with a variety of courses and subjects, the purpose being a test of his abilities and interests.[11]

Most of us agree that the junior college is a part of a school system which should serve *all* the pupils.[12] This being the case, we must first of all find out what they want to do. In the majority of cases, they want to transfer to higher institutions. Yet in reality only a small percentage are actually able to accomplish this. In this regard, it might be well to look at a study made by Professor Eells in 1929-30. "The most striking fact shown by the survey is that 80% of the junior college students of the state are definitely planning to continue their education, while only 5% are sure they will not do so."[13] It becomes evident from this survey that whether the students actually enter the university or not, they are planning their courses with the university in mind. Because of this fact they probably will not take terminal or semi-professional courses.

While no student can be told that he hasn't the ability to do university work without such a statement having a very harmful effect upon him, his interest in vocational work can be aroused, especially if he knows only vaguely why he wants to continue his work at a four-year college. Reading matter on the prospects which certain professions offer, examples of men who have made themselves famous in certain types of work, and a thorough presentation of the fact that a college education of the academic type is not necessary for a full and successful life are all ways of helping the young boy or girl who has neither proper previous training nor the necessary ability to do transfer work to see the value of the semi-professional courses. It is, therefore, the duty of the guidance staff to direct these students diplomatically into terminal or technical courses of study.

Courses of university transfer credit must, of course, be provided for those students interested and capable of further training at a college or university. Through the entire junior college offering we must facilitate integration. Harbeson gives us a good explanation of this when he says:

Within the mind of the student, however, integration must take place, else the cur-

[10] Koos and Kefauver, *op. cit.*, 161.
[11] *Ibid.*, 167-168.
[12] Virgil E. Dickson, "Counselling in the Secondary Schools," in *The California Quarterly of Secondary Education*, III, 341.
[13] Eells, "The Aspirations of the Junior College Students," in *The California Quarterly of Secondary Education*, VI, 239-241.

riculum will be all confusion and misunderstanding. This mental integration is dependent upon an intelligent conception on the part of the student of the objectives of education, and more particularly, of his own life objective and the part which his courses play in the attainment of these objectives. He selects his courses exactly as he selects his food in the cafeteria line on the basis of his own particular and personal needs. To make wise selections of the curricula offerings the student must know three things: (a) his life objectives, (b) his abilities and aptitudes, (c) the nature of the curricula offerings and how they may contribute to the meeting of his needs.[14]

The student's needs must, of course, be based upon the community needs, hence the establishment of the community college. These community needs are not self-evident, and, for the most part, must be sought out.

Research

One of the tasks of research, then, will be to discover what the needs of the community are. What courses offered in the junior college will enable the terminal group to become fine, stable citizens of the community and to find a place in its occupational life? This was the kind of research that determined the establishment of the school of oil technology in the junior college at Coalinga, California. "The guidance program," says Dickson, "should include (1) research functions, and (2) guidance functions (educational, social, and vocational)."[15] Guidance research may be defined as the investigation of, and the search for, scientific data which may be utilized in such a way as to enhance the effectiveness of the guidance program. This research will not only delve into the particular needs of the community, but will also investigate the new material being constantly written and published by leaders in the guidance field. Both these kinds of research must be carried on to make the guidance program efficient.

Placement and Follow-up

With the consideration of all the factors dealt with in this study so far, we come to the end of the process of guidance which deals with the student while he is actually enrolled in the junior college. But the guidance function has not proven itself effective if it stops there, making no effort to assist the student to secure placement in the vocation which he has chosen tentatively for his life's work. For the semi-professional student each junior college should maintain a placement department. Whether it is separately organized or handled through the Dean's office depends, of course, upon the size of the college in question. But through contacts with the business men in the community this department should make every effort to place qualified students where openings occur. A record of each student, including his college program, grades, and recommendations from the Dean and those instructors most cognizant of his ability, should be kept on file in order to make adequate recommendations to prospective employers. Students who are placed should be followed up to determine their success or failure. Such surveys may prove valuable in adjusting the college program. If a large number of its vocational students fail in their first positions, it is evident that something must be wrong with their training or with the guidance that helped them choose their vocations.

The same follow-up program should be maintained for college transfer students. A record should be kept in the Dean's office of the course pursued, and the grades earned at the institution to which each of the students transferred. If many of them

[14]John W. Harbeson, "Curriculum Integration at the Pasadena Junior College," in *The Report of the Curriculum Commission of the Western Association of Colleges and Secondary Schools*, (March 29, 1934), 17.
[15]Dickson, *op. cit.*, 342.

failed or found the work unusually difficult, one or two conclusions may be drawn. Either the junior college studards of work were too low or the students were not college material. If the latter is true, the guidance program is definitely at fault for not discovering this fact and guiding those students into semi-professional courses. Most authorities agree that the junior college must be careful not to make the standards for its transfer courses lower than those of the colleges to which students are apt to transfer. It surely raises false hopes in the minds of the students, and it will most certainly be a black mark on the record of any junior college, if many of its transfer students fail in four-year colleges.

Summary and Conclusion

The body of this paper has been a presentation of the steps in the process of putting into operation a plan of guidance. In order that any counselling program may work effectively, a certain sequence must be adhered to in the organization of such a plan. The steps herein presented may not fit the case of every junior college. Some aspects of the system may be already in use, hence the completion of the organization will merely mean adding those steps which are not existent. But for the most part, it would seem that the sequence followed in this article is logical and surely adaptable for the purposes of guidance as such.

The guidance program considered has been a complete one, taking into account not only all the functions which are unquestionably those of counselling, but also discussing those which have a bearing upon guidance and in which the director of guidance will be able to give valuable help. Too many times counselling has meant only the construction of student programs, and has not had sufficient planning and follow-up to make it effective. This fault will be eliminated if all the factors discussed herein are given thoughtful attention.

THE SOCIALLY-CENTERED VERSUS THE SUBJECT-CENTERED, OR THE CHILD-CENTERED SCHOOL

WILLIAM MARTIN PROCTOR
Professor of Education, Stanford University

THERE ARE few educational administrators who will admit that they believe in a subject-centered school, *i.e.*, a school where the mastery of the subjects of instruction and the earning of credit therein constitute the chief end and aim of the school's existence. The shift of educational philosophy has been almost unanimously away from the subject-centered, and towards the child-centered, school.

Ancestor Worship. In practice, which is the best proof that a philosophy is really taking root, we find that the great majority of high school principals are still worshipping at the shrine of "the God of Things As They Are," still thinking in terms of subjects for their own sake, and of credits and specified patterns of required courses for the sake of admission to college.

At the risk of "making confusion worse confounded," the writer is going to suggest that, while we are in the processs of shifting from the subject-centered base, we might as well go all the way, and aim at the goal of a socially-centered school.

Educational Philosophy and Ruthless Individualism

The theory back of the pressure for a child-centered school was that the child and not the subject should become the educational center of gravity; that the child's interests, his development, his life plans, his desires and ambitions should furnish the motivation, and determine both the content and the method for a reorganized program of study.

The extreme position of the advocates of this philosophy was that the child should create his own curriculum, and that the function of the teacher was simply to provide many varieties of learning situations, with a view to stimulating the child to select those experiences which would promote his proper growth and development.

The position was supported that there should be no repression, no constraint, no compulsion, no fixed body of teaching material. The child must be free, must be encouraged to express himself, must be permitted to carve out his own destiny, to achieve his own ultimate personality. This child-centered idea, therefore, becomes the educational expression of extreme individualism. Its outcome should be expected to be the development of self-centered, self-seeking individualists. While there have not been many genuinely child-centered schools, there have been thousands of child-centered homes, training up children who think only in terms of themselves and their own wants and desires. The era of economic prosperity enabled the American parents to gratify the whims of their children to an unprecedented degree, with the result that personal satisfaction and reckless abandon to high speed, selfish indulgence have characterized the behavior of all too many of our youth. The harvest of rampant selfishness is now in process of being garnered.

The economic situation since 1929, however, has caused many of us to wonder if the greatest question now

before the American people is not that of raising up a new generation of public-spirited, socially-minded persons who have been conditioned to behave toward their fellows in a considerate manner. Such a generation would be in marked contrast with the selfish-minded, self-centered individuals, who think only of their own desires and their own welfare. A very large proportion of the ills from which humanity is suffering today may be traced to lack of deep-seated courtesy in dealings between one person and another, as well as to a lack of loyalty to basic ideals of social service. The child-centered home, and the child-centered school, are alike training grounds for "rugged individualism" of a type which may have been admirably suited to the pioneer stages of American culture, but which must give way to the socially-centered type of training and philosophy, if we are ever to have a truly democratic social order.

The Child-Centered School Leads to Anarchy. The child-centered school is based on the concept that if the individual is encouraged and trained to achieve his own highest good, the result will be a collection of individuals who will automatically constitute a desirable social group. That is to say, the indulgence by the individual in the pursuit of self-interest, will ultimately result in a whole community advancing by reason of the advancement of all the individuals making up that community. The ultimate outcome of that philosophy is individual isolation or anarchy, since each one thinks first of himself, and tends to pursue his own selfish ends, regardless of the outcomes in terms of society as a whole, or even in terms of the small social group to which he belongs.

The Socially-Centered School Leads to Social Solidarity. It would be the socially-centered school, on the other hand, to train people for social living, to develop in them a sense of the value of social solidarity; to help them to see that the welfare of the whole social group is more important than the welfare of any part or segment of that group. Students would be trained in relation to their health and mental hygiene needs, their esthetic and recreational needs, and their economic-vocational needs, etc., but these knowledges, skills, and attitudes would be taught with a view to their effect upon the student's behavior as a member of various social groups, such as the classroom group, the family group, the precinct, the municipality, the state, and the nation. He would be taught not only his own rights as an individual, but his duties and obligations as a contributing member of a vital social group.

The socially-centered school takes, first, account of the entire environment of the student, and seeks not only to help him to make his adjustments to that environment, but encourages him also to believe that he can and should make a contribution toward the progressive improvement of both his social and his physical surroundings. In such a school, subjects are not studied for their own sakes, nor is the student encouraged to believe that he is the center around which all things in the school and out of the school must revolve. He quickly learns that he is a functional unit of a total social situation, and that he has an active part to play in that situation. He is thus able to connect his school experiences directly with worth-while life experiences. Things to be learned are no longer isolated fragments, without meaning, which one has to be driven to study, or to master by extrinsic rewards such as marks, or honors, or by the negative threat of failure. They become interesting features of an understand-

able plan which leads to a desirable goal. The student thus becomes an active partner in a going concern.

Although it is not possible to name a single secondary school which has succeeded completely in achieving the socially-centered school ideal, there are a great many secondary schools which are now experimenting with the general plan. It will be our purpose to suggest a few of the internal administrative adjustments that will be necessary, before either the subject-centered or the child-centered type of school can be transformed into the socially-centered school.

Administrative Adjustments That Must Be Made

In the socially-centered school, the learning activities will be organized around socially desirable objectives, such as health, and mental hygiene, coöperative living, vocational interests, avocational and recreational interests, and social-civic idealogy. The outcomes will be measured, not in terms of marks and credits, but in terms of progress toward well defined personal and social goals. If one has made progress toward the goals which he himself has had a hand in formulating, even though that progress may have been slight, the record will be a positive record. If he has not made progress, but has actually slipped back, still the record will not be of failure, but will be thought of as valuable exploratory experience which has helped one to discover his own abilities and limitations, and hence is to be used in helping one to discover his own abilities and limitations, and hence is to be used in helping one to new and more attainable goals. The development of the individual, and the improvement of society, will be the standards by which curriculum materials, or instructional methods, will be judged and either adopted or rejected.

The organization of instruction around such personal and social goals will mean that the coventional air-tight compartment subject divisions will tend to disappear, and, in their place, broader fields of instructional material will be evolved. The current series of experiments with fusion of existing subjects, such as English and social studies, or science and mathematics, are movements in the direction just indicated. In some of the attempts made thus far, the *"confusion"* is more apparent than the *"fusion"*, but it should be remembered that it takes a long time to break down the barriers that have been built over a series of years between subjects. This is true, even of subjects in the same field, such as literature and composition in English, or between plane and solid geometry in mathematics. However, progress is bound to be made where so many active minds are working on a problem, and we may hope, within a reasonable time, to achieve genuine fusion, both horizontal and vertical, in certain of the instructional fields.

Considerable difficulty is being encountered in the effort to eliminate marks as a measure of achievement in school work. For one thing, parents are accustomed to marks, and seem to feel cheated when their children do not bring home a flock of A's on their monthly or quarterly report cards. Perhaps the greatest difficulty in the attempt to abolish marks is that it is frequently undertaken as an isolated gesture of reform, unaccompanied by more fundamental changes in the secondary school program. If separate subjects in a conventional program are to be retained, there is not much reason for abolishing marks. The retention of such subjects implies mastery of content, and for the determination of such mastery, examinations, either subjective or objective, must be

given. If the examinations are *subjective,* a letter grade is as good a method of recording one's estimate of the result as any. If the examination is *objective,* a percentile ranking may be employed, which, in turn, may easily be translated into a letter grade.

If, however, the emphasis is to be shifted from subjects to personal and social goals to be attained, the measurement of outcomes can be expressed, as suggested above, in terms of progress, or lack of progress, toward those goals. The goals, however, will need to be clearly defined, and a method of measuring progress toward these defined goals will need to be developed. The task will be more difficult than the giving of examinatios on fixed assignments of content material, but it is a task that the progressive administrator must face, if the socially-centered school idea is to make progress. The difficulty of elimination of marks is well illustrated by the story of the professor of education who preached a doctrine of "No Marks!" but took his Johnny to the woodshed when he brought home a mark of "D" in arithmetic. As he applied the slipper, he said: "I'll teach you, young man, that the Smiths just do *not* make 'D's' in their school work!"

Another feature of the socially-centered school will be the disappearance of the line that now separates curricular and extra-curricular activities. Historically, such activities grew up in response to two demands. First, the demand of students for an opportunity to express themselves in enterprises over which they had control. This was an effort to escape from the unreality of book-learning, as well as an effort to discover a new means of relaxation. Second, the teachers inaugurated certain supplementary club activities such as German Clubs, Latin Clubs, Astronomy Clubs, and so on, as a means of encouraging further learning of an informal nature stimulated by the play interests of students.

If instructional material is organized in terms of individually and socially desirable goals, all such activities as have heretofore been designated "extra-curricular" will become curricular, and may be appropriately incorporated into the regular curriculum, provided they have real educational value. Here, again, it will require careful administrative guidance to make sure that a particular school is fully prepared for the proposed change. Also the same limitation holds as was pointed out in connection with marks. Unless the shift is made from the subject-centered to the socially-centered type of curriculum, the extra-curricular activities had better be left "as is." A great teacher a long time ago cautioned his disciples against patching *old* wine skins with *new* patches.

Closely related to the fusion of curricular and extra-curricular activities is the tendency, in socially-centered schools, for the activity-type curriculum to come into its own. The elementary schools have made marked progress in developing the activity type curriculum, in which "learning by doing" is not only preached, but practiced. Secondary schools have been very slow to capitalize the experience of the best elementary schools. In a study of the activity type elementary schools in Pasadena in 1931[1], it was found that the children who had passed through that type of school into the junior high schools had not suffered in their mastery of the fundamental or tool subjects,—also that, intelligence and social status being equal, those who had progressed through the activity type school had

[1]Proctor, W. M.: *The Six-Four-Four Plan in Pasadena.* Board of Education, Pasadena, Calif., 1933. pp. 33-37.

gained in qualities of leadership, in originality, and in the capacity for creative activity in dramatics, art, and English expression over those who came to the junior high schools from the conventional program.

Where the purpose is to help the student to make progress toward individually and socially desirable goals, the activity type program is more appropriate than the specific subject type program, because it encourages the student to participate in activities which are designed to give first-hand experience in social situations which duplicate the conditions that one will encounter in real life. Also, the activity type program provides experiences which are satisfying in themselves, experiences which are, in fact, life actually engaged in under such instructional supervision that they yield genuine educational values.

The introduction of this type of curriculum into the high school, either junior or senior, is a difficult administrative task. It should not be undertaken without long and careful preparation. It is best to introduce it in one or two instructional fields at first, giving it a thorough try-out before extending it to other fields. For in spite of the rather widespread acceptance on the part of administrators and teachers of the educational philosophy of the socially-centered school, the practice of this philosophy in actual classroom situations is discouragingly meagre. In spite of the experiments in certain progressive secondary schools, which have been doing excellent pioneering service, we find that the mine run of high schools in this country still continue to offer the good old subjects, and teach them in the same old way as they were offered and taught when grandpa was a boy. There are several reasons for this. The philosophy of education of the great majority of high school principals still remains in the ox-cart stage of development. The parents believe that what they studied in high school is good enough for their children. The college admissions committees still demand so much English, so much mathematics, and so much foreign language, and insist that these requirements be delivered in standard packages neatly labelled and carefully evaluated with A's, B's, C's, D's, E's, and F's, or 1's, 2's, 3's, 4's, and 5's. We pride ourselves on having a liberal admissions policy at Stanford, so far as prescribed patterns of subjects are concerned, but we still insist on a certain number of A's and B's in the high school record. At a recent meeting of the Committee on Admissions, a case came up where the candidate's grade point average was 2.95, where it should have been 3.00. We decided that the probable error in teachers' marks amounted to more than the difference, and so admitted the student. So it will probably be a long time before marks can be entirely eliminated. It is simply another administrative goal to be striven for, as rapidly as circumstances in given schools will permit.

But even if the administrators were all agreed that an activity type program were best, and if parents would keep hands off while the necessary reorganization was being made, and even if the colleges would accept graduates from secondary schools so reorganized, the vital fact would remain that very few teachers could be found to carry out such a program.

The only way, therefore, to make the shift from the present status to what many of us believe to be a more desirable situation is to make an assault all along the line. High school executives must be brought over to a changed view—*i.e.*, that the school was made for the child and not the child for the school, and that it is their job

to see that learning experiences are arranged which promote development both toward socially and individually desirable goals. Adults must be brought to understand that development takes place more rapidly in situations where the child understands what the goals are, toward which he is asked to strive, and most of all when those goals have definite meaning to him and appeal to him as desirable. Such an understanding would lead parents to demand that their children be permitted to engage in activities specifically designed to promote such learning experiences. Colleges must be persuaded to remove the hand of repression, and encourage new adventures of experimentation by secondary schools. This would require the discovery of new methods of selecting students for admission to college, as well as new standards for accrediting secondary schools. Thorndike tells us that, by our present methods, we undoubtedly reject at least one-third as many of those who could make as good a college record as those who are actually admitted. This means that our present methods of selection are not only antiquated, but stand in the way of a dynamic revision of secondary school programs of study. The need for revision of accrediting and admission procedures is already recognized. A committee of twenty-one, representing all of the regional associations of colleges and secondary schools, is now working on the problem. A subvention has been obtained from the Rockefeller Foundation, and an executive secretary has been chosen. A specific case will illustrate present rigidity in accrediting. A secondary school in Ohio met every condition except that one member of its faculty had had less than fifteen hours of work in Education. Accreditation was denied by the North Central Association until that teacher's Education hours were brought up to standard.

Likewise, there must be an extensive as well as an intensive campaign of teacher training to insure a supply of teachers who not only believe in the new type secondary school, but who know how to adapt their teaching procedures to the changed conditions which confront our schools at the present time.

The Principal Must Lead the Attack. A change in any one of these agencies alone, — the administrator, the patrons, the colleges, or the teachers, would not make much of an impression. There is need for a general campaign in which the administrator shall take the lead. But in order to take the lead, the administrator will need to redefine his purposes in secondary education, and reshape his activties with a view to achieving these purposes. The really progressive secondary school implies a progressive principal, a progressive faculty, a progressive and coöperative community, and progressive and coöperative colleges and universities. I am inclined to believe that the key individual of the series is the progressive high school principal with a clear-cut vision of the possibilities that inhere in a socially-centered high school.

THE NEW SCHOOL WILL BE THE PRODUCT OF THE NEW CURRICULUM*

Reported by

MURIEL EDWARDS

County Superintendent of Schools, Santa Barbara

IN OUTLINING the "Principles in Current Curriculum Construction," Dr. Paul Robert Hanna, Associate Professor of Education, Stanford University, made the following points and contrasts:

I. The typical "course of study" procedure in curriculum construction a few years ago was an outgrowth of social conditions of the American frontier.

II. Current practice starts with new foundations — the social scene having the characteristics of mechanization, a dynamic philosophy and an organismic psychology.

III. The method of current practice is the education of teachers in terms of these new foundations, for no education experience can be better than the teacher's ability to understand the changes of society.

IV. Steps in the organization of a curriculum program are: enrichment of the personality of the teacher in terms of contemporary phenomena, psychology and philosophy; continuous and serious study by teachers in major areas of human advance. Summarizing, the cycle consists of:

1. Fundamental study by all teachers.
2. A period of translating these new understandings into new learning experience with children, experimentation and innovation.
3. Formulation of the scope and sequence into which these new experiences will naturally fit.
4. Sharing these experiences with other teachers through a course of study.

Such a cycle may take from three to five years, and is repeated over and over.

In discussing "Techniques in Current Curriculum Construction at Early Levels," Miss Helen Heffernan, Chief of the Division of Elementary Education and Rural Schools, State Department of Education, discussed (1) recognition of the purpose of curriculum construction as suggested improvement of instruction, (2) plans for organized professional and lay coöperation, (3) the need for stimulating leadership, and (4) the need of a comprehensive and continuous program.

She pointed out that elaborate courses of study have not resulted in change in the quality or content of instruction, because they have represented the product of a curriculum staff working too remote from the actual classroom situation, and teachers have experienced none of the stimulating growth that comes from doing curriculum work.

It is the superintendent's function to organize administrators, supervisors, teachers, curriculum specialists, and school patrons for effective coöperative activities.

A curriculum which will function in terms of an improved educational program can develop only as every teacher senses her responsibility for translating, into classroom procedures, the understanding of needs and interests of children, the dynamic philosophy of education and changing social needs.

The purpose of lay participation is to secure constructive suggestions for improving the work of the schools

*Resumé of a panel discussion at the annual convention of County and City Superintendents, at Coronado Hotel, October 8, 1935.

that the schools may serve the practical needs of the community and be given the intelligent support that is based upon understanding of its purposes and program. Such organization should result in a curriculum which will articulate in the various units of the school system, because segmentation has been disregarded by providing membership from all levels. The ideal setup will provide for continuous comprehensive curriculum activities on all levels at the same time.

A chart was shown indicating the progressive development of curriculum activities as follows:

Period 1. A period of orientation to understand (1) the nature and needs of childhood, (2) a dynamic as opposed to a static philosophy, (3) the need of reorganizing subject-matter and method in terms of recent social, economic and industrial trends.

Period II. An experimental period in which teachers attempt to apply these understandings to classroom instruction under the guidance of the superintendent and his supervisory staff. *No writing of courses of study* have been attempted during these two periods.

Period III. Organization of committees, development of curricula materials and their experimental use in the schools.

Period IV. Evaluation of curricular materials tested in Period III, coördination and unification, and preparation of materials in suitable form for use.

Period V. General installation of courses of study materials; plans set up for continuous re-evaluation in terms of definite criteria.

In discussing "Techniques in Current Curriculum Construction on Later Levels," Dr. Aubrey A Douglass, Chief of the Division of Secondary Education, State Department of Education, pointed out that a program of secondary school curriculum has evolved as a result of the coöperative planning of the Advisory Committee on Secondary Education, the local and regional committees, the principals' organizations, the Committee on Coöperating Schools and the Committee on Secondary School Problems of the California Teachers Association.

This program gives every possible encouragement to the contributions which have been made in the fields of guidance, instruction, or administration. Immediate attack should be made upon the problem of developing a platform or philosophy of education, and upon the production, evaluation, and distribution of teaching materials.

Dr. Douglass made it clear that problems of curriculum must precede statements of techniques. The plan of action must precede a technique. Time is being lost because teachers, and even supervisors and administrators, in one division of the school system are often in ignorance of what has been developed in another area. Advance in theory and in practice has been greater in the field of elementary education than in secondary education. It is suggested that we take such steps as may be advisable to bring to high school faculties expositions of the best theory, demonstrations of the best practice, and accounts of ways and means to determine the results of instruction found in progressive elementary schools.

The first attack in secondary education techniques should be made upon basic problems of policy. The attempts to revise or improve the curriculum in the past may be characterized as follows:

1. Curriculum makers were mor or less content to accept subject organization, but believed that content should be improved. Attempt to select subject-matter of intrinsic value; intrinsic value meant probability of adult use. Some pre-economic-depression workers were conscious of the faults of cold storage methods, of the fact that we live in a changing society, and of the problem involved.
2. The activity analysis approach: Occasionally a technique was introduced which developed from the belief that

activities should not be assigned indiscriminately, but in accordance with the capacities, needs, interests and probable length of stay of groups of pupils.

3. Development based upon the point of view that a general aim can be set up for education, which may be analyzed into specific aims.

Subject to modifications made necessary by individual interests, and abilities, the specific aims determine the curriculum.

This is the most commonly accepted approach to the problem. Certain groups of curriculum workers are turning to a study of scientific, industrial, social or political advances in order to find guide lines for curriculum construction. These guide lines may be called "themes" or "basic concepts" or "major functions of social life." Example: Protection and conservation of life, property, and natural resources. With such others as may be selected, this serves to delimit the core curriculum throughout the school. Home, school, and community agencies are forces which influence the discharge of the function: protection of life and property.

There is evidence that the trend in the organization of curriculum materials is in the direction of integration of social studies, English, art, and perhaps music. The tenth grade offering, which in unreorganized schools consisted of world, or of medieval and modern history, English, literature, and oral and written expression, assumes some such title as World Culture. In the eleventh grade, the reorganized courses are treated as American Life.

The social studies, English-music-art combination, with health and physical education, and sometimes science, represent the core curriculum.

The issue of requiring the same work of pupils of different interests and abilities is met by varying the attack for individual pupils or groups of pupils.

The problems involved in such an approach are:

1. Intelligent adaptation to needs, interests, and abilities of individual pupils or groups demands a knowledge of those needs on the part of the teacher.
2. Adaptation involve more than knowing the pupil's intelligence quotients.
3. Study of health status, personal characteristics, home and environmental influences is needed in making adaptations.
4. Curriculum must be based upon problems in which boys and girls are interested in and capable of attacking, not those of adult interest in remaking society.

It is suggested that administrators survey their own practices to determine whether the curriculum problem is being attacked because of administrative edict, or upon a basis that recognizes teachers as colleagues in a common enterprise. While this scrutiny is being made, it might also be advisable to ask if a consistent policy towards the improvement of instruction has been maintained, and if teachers are aware of this policy.

Dr. George H. Meridèth, Assistant City Superintendent of Schools, Pasadena, in his discussion of "Practice in Current Curriculum Construction," said that due to a shift in psychology and philosophy of education the curriculum trend has been definitely toward enriched concepts by the classroom teacher of the world as it now is, and enriched understanding of the child and his world hence.

There should be a program of study by all, with the preparation and provisions of materials by many; a common sharing of experience by many, with actual writing of materials by a few.

Practice is toward continuous development and evaluation of materials, making the curriculum, in con-

trast with the older idea of stationary situation.

Two types of expert services are:

1. A person in charge of the instructional program, or a curriculum director serving a community socially.
2. A consultant in curriculum matters, operating from a specialized point of view.

Since the child is the point of departure, we have the curriculum invisible, growing out of the daily situation in the life of pupils and teachers.

Materials are only suggestive of significant ideas and good practice. The tendency in California and other states is to work at the curriculum problem on a basis of larger areas. This makes for a more unified approach to the problem. Curriculum approached as a looming problem offers the chance to make desirable differences for children.

To insure better articulation and intelligent direction on state-wide bases we need a larger framework to give purpose and intelligent direction to education.

Although elementary schools have made much progress, pupils leaving these schools with rich experiences can hardly get into the formal secondary schools.

We must supply situations that will make a continuous experience for the child from the kindergarten through college.

Notes From Critical Discussion

E. V. VAN DELLEN:

Education that takes place in the child is from experience which results in the child.

The significance of the new curriculum is in the improvement of the personality of the teacher. Teachers must be taught in fundamental concepts.

L. E. CHENOWETH:

Need for curriculum revision arises from sweeping social, economic, and civic changes, changes in the types of children, existence in the curriculum of antiquated objectives, materials and procedures and the uneven character of the curriculum program, some school districts enjoying to a very limited extent advantages enjoyed by others.

Curriculum revision has been spasmodic rather than planned. It should be an orderly, continuous process.

Difficulties are: members of curriculum committees lack the necessary time and energy; superintendents and principals are kept too busy to do much more than attend to routine duties; institutions of professional research and training have hesitated to take the lead.

DR. LEWIS M. SMITH:

The work of building a curriculum is a continuous thing. Subject-matter changes rapidly in a changing society, and it is difficult to choose matter that will be adaptable.

Teachers should have a philosophy of education.

ENGLISH CURRICULUM COMMISSION COMPLETES WORK

HOLLAND D. ROBERTS
Stanford University,
Chairman of the Public Relations Committee,
National Council of Teachers of English

EXPERIENCE has the chief emphasis in *An Experience Curriculum in English*,[1] the recently published report of the Curriculum Commission appointed five years ago by the National Council of Teachers of English.

Experience is described, after John Dewey, as meeting a situation, doing something about it, and taking the consequences. "The ideal curriculum," the report states, "consists of well-selected experiences. The building idea for both curriculum builder and user is the conception of the curriculum as a body of guided experiences, paralleling present and future out-of-school experiences."

With such a basic philosophy of learning for living, social situations determine the organization of the curriculum. Each of the big sections of pupil activity — literature, reading, speech, writing, and creative writing —is divided into "strands" of similar activities. For example, Speech at the secondary level is divided into Conversing, Telephoning, Interviews and Conferences, Discussion, Questions and Answers, Organizations, and Special Occasion Speeches. Literature at the elementary level is divided into Enjoying Action and Suspense, Enjoying Humor of Various Kinds, Enjoying the World of the Senses, Exploring the Social World, Enjoying Fantasy and Whimsy, and Sifting the Radio Programs.

Since "the exchange of ideas and information is the very life blood of society," the commission reports that "the art of communication must occupy a prominent place in any modern curriculum." And because the occasions for speaking are more frequent, more varied in type, and in many ways more difficult to meet than occasions for writing, it is recommended that pupils be given more school experience in spoken than in written communication.

The teaching of literature is based on the conception of giving the pupil experiences that have intrinsic value for him now. But since not all pupils in the same grades are ready for the same experiences, the literature course must be highly flexible, so that the teacher may choose material to suit the personalities and the social situation in each class. Pupils are frequently to be given the experience of choosing for themselves what they will read as regular class work, and allowed freedom almost always in outside reading. "For the graduate never to have read a sentimental, improbable, or badly written book," the report announces, "is a misfortune. We should let the boys and girls make choices between good and poor books while we are still at hand to help them establish standards." A warning is sounded against trying to develop the reading habit through compulsion. "There is abundant evidence that pupils will read more, now and hereafter, under stimulation and guidance then under specific requirements."

An important feature in the Experience Curriculum is the relegation of corrective work in language and reading to a separate division where it will be experienced only by those

who, in tests or daily performance, clearly show need of it.

Members of the Commission approved in the main the present strong tendency to experiment with integrated activity units, but they did not feel that the time was ripe to offer a course of study which should include all the other subjects taught. The units given in composition are so arranged that they will fit very well into such activity units as individual schools or teachers may initiate.

An innovation proposed in the report, which is likely to provoke widespread interest among teachers, is the omission of formal grammar, both as a separate part of required English study and as an aid in corrective work.

"Since no scientific experiment has ever shown any considerable value of grammar in the establishment of habits of correct speech or writing," W. Wilbur Hatfield of Chicago Normal College, chairman of the Commission, states, "grammar is introduced solely as an aid in the construction of more effective sentences. After ordering such organization, many members of the Steering Committee were at first shocked by the result, but upon more thorough study, they almost unanimously approved it."

An Experience Curriculum in English is the work of a commission of 100 successful teachers of English from all sections of the United States, and, as such, represents the best current thought about the content, and, to some extent, the method, of instruction in literature, reading, and expression, both oral and written. Representatives of the following organizations served on the Commission:

National Education Association,
American Association of Teachers Colleges,
National Association of Teachers of Speech,
National Association of Journalism Advisers,
North Central Association of Colleges and Secondary Schools,
Southern Association of Colleges and Secondary Schools.

The appearance of the book is timely, for the courses of study in English as in other studies are now being reorganized in many schools and school systems, and a guide has long been needed. School administrators, members of curriculum committees, and teachers interested in bringing English teaching in line with present-day educational philosophy can now benefit from the co-ordinated efforts of leading thinkers in the profession.

The book is of especial significance in that it represents the first attempt ever made to devise a pattern curriculum in English from kindergarten through graduate school. The Commission, recognizing the impossibility of creating a single curriculum suited to pupils in many different environments, has limited its work to a presentation of essential principles in an integrated course of study throughout the school period, and to an application of these principles.

The recommendations of the College Committee of the Commission for the teaching of English from the freshman class through graduate school were published last year with the title, *The Teaching of College English*,[2] under the editorship of Professor Oscar James Campbell of the University of Michigan. The two books cover curriculum problems in the entire English field.

[1] D. Appleton-Century Company, 350 pages, $1.75.
[2] D. Appleton-Century Company, 164 pages, $1.50.

AN EXPERIMENT IN INFORMAL EDUCATION

ROSE E. STETLER
Benjamin Franklin High School, Los Angeles

AN EXPERIMENT concerned with the education of the superior student has been in progress for the past year at the Benjamin Franklin High School in Los Angeles.

The group selected for experimentation is composed of about one hundred students representing the upper third of the beginning tenth-year class. The students were selected upon the basis of their intelligence quotient rating and of teacher recommendations. Grade earnings, as such, were frequently disregarded, for several members of the group have a high intelligence quotient, but have been receiving low grades in subjects. The majority of the group, however, show both a high I. Q. and high school marks. A very few students having rather a low I. Q. were included, because their previous teachers believed they had shown particular promise. The following charts show the distribution:

Distribution of Intelligence Quotients of 96 students enrolled in the Informal Group compared with Intelligence Quotients of 96 regular B-10 students.

I. Q. Range	Informal No.	Informal %	Regular B-10 No.	Regular B-10 %
Above 140	4	4	0	0
120-139	35	37	4	4
110-119	37	39	15	16
90-109	20	20	67	70
80- 89	0	0	10	10
Totals	96	100	96	100

Distribution of chronological ages of 96 students enrolled in the Informal Group compared with chronological ages of 96 Regular B-10 students.

C. A.	Informal No.	Informal %	Regular B-10 No.	Regular B-10 %
17:6—17:11	0	0	2	2
17:0—17:5	1	1	1	1
16:6—16:11	0	0	4	4
16:0—16:5	4	4	25	26
15:6—15:11	8	8	26	27
15:0—15:5	26	27	25	26
14:6—14:11	38	40	10	11
14:0—14:5	16	17	3	3
13:6—13:11	3	3	0	0
Totals	96	100	96	100

The entire group of one hundred was divided in two parts, and each section of about fifty was directed by two teachers, one each from the English and social science departments. Each group, then, proceeded more or less independently, conferring only when it was found necessary to decide upon some uniformity of important principle or practice. In its inception the experiment was called the "Informal Group," because of its wide departure from the regular routine of the school.

It was planned that these two instructors should provide all the instruction in history and English for these pupils in their three-year course. Special classes in other subjects were provided for these students who, as far as possible, have not entered the regular classes at all. It was hoped that in this way they might meet a kind of instruction different from the routine type, adjusted to meet the special abilities and needs of a superior group. It is the purpose of this article to describe the progress of one of these groups.

The work of this section is carried on in two rooms. One large room is furnished with tables and chairs, a locked cupboard for books, and a few maps and other necessities. Very little equipment has been furnished for their special needs, due to lack of funds. More special equipment would have greatly facilitated the work. The group meets here as a whole for lectures, general discussions, and pro-

grams, with both teachers present, sometimes one, sometimes the other, taking charge. Often their work is so completely fused that it is hard to tell which one is conducting the class. A nearby room, somewhat smaller, but adequate, is used when it seems feasible to divide the group for any purpose. This is rather frequently done for study.

Basic texts and parallel texts in quantities of ten, whenever available, are kept in the room, together with large and small dictionaries, atlases, and similar reference books. The rooms are not ideally situated, being remote from the school library, so that often large numbers of volumes are brought from the library at one time for temporary housing in the main classroom.

The two instructors also act as home-room teachers and curriculum advisers to the entire group. This arrangement makes possible the combination of all the best features of home-room contacts, with the regular class work, and greatly facilitates the dispatch of home-room duties.

The regular work is conducted largely as individual study, supervised and directed by the teachers, who are in constant circulation among the students, advising and suggesting. General talks are given whenever a new topic is to be introduced or a special point made clear. Panel discussions with prepared reports from a limited number of students, with other students making contributions, are found to be excellent procedures; but always the basis of the plan is that each student shall be prepared in the entire subject, not merely one phase of it.

Frequent calls are made upon other instructors in the school, and upon outside authorities, for enlightenment upon various points.

An important informal feature of the work is that these teachers spend all the afternoon with the group. They are not bound by period divisions and bells. Often they work straight through the passing-time of five minutes when they are busy on some project which they do not care to stop. The time is not divided into one period of English, one of history, and one of study. This division was used at first, but without effort or intention the other, freer arrangement has become the practice. This arrangement also makes it possible for the whole group, or parts of the group, to absent themselves from school for the entire afternoon for some of the trips and excursions described later.

Another informal feature, which is perhaps not apparent in this report, is the complete fusion of the English, history, social welfare, recreational, artistic, musical, and personal interests and activities of these pupils. Such a condition is impossible under the one-period-one-teacher system. It would appear as though the method approaches the ideal of "educating the whole child."

Certain aims toward which the course is directed may be summarized as follows:

Summary of Aims

The instruction aims to pass beyond concern for mere facts and names as such, and strives to determine the bearing of each period of human culture upon our own. To attain this self-understanding the student should build up for himself a picture of the time-sequence of cultures, of their geographical setting, and of their historical developments. This means that into a framework must be set the vivid outlines of the achievements of each age in the organization of society, in literature and art and music,

in science and philosophy, in morals and religion. Thus the whole history of human culture is the material from which understanding of civilization and of the human life must come. When the student understands what of good has lived, how worth-while influences make for subsequent conduct and right living, and what forces have been constructive and what destructive, then, and only then, may he make an adequate plan of life for himself.

To attain this understanding, it is planned to build knowledge gradually from a reasonable place of beginning, the Greeks. Much use is made of the methods of recapitulation, constant comparisons of periods, of characters, of causes, and results. These methods, it is believed, can secure best results only if students continue for three years with their same teachers instead of transferring to other instructors who would not be fully aware of what the students have previously studied.

Outline of Plan of Procedure

The following outline indicates in general what, up to the present, the plan of procedure has been:

I. At the beginning of the first semester the student is introduced to certain concepts which are often reiterated as unwelcome, highly disturbing, even revolutionary, changes in their habitual attitudes:
   1. The idea of working for the sake of self-improvement rather than for grades.
   2. The idea of individual rather than class work.
   3. The idea of the long assignment rather than daily check-ups.
   4. The development of a sense of responsibility on the part of the student for his own progress, and demanding of him self-control and self-direction in his work.

II. Specific skills begun at once and intended to be maintained continuously throughohut the three years:
   1. How to prepare correct and adequate bibliographies.
   2. How to take notes. (This work began with lectures by both of the teachers of the group, and by the vice-principal, followed by practice in note taking, discussions of types of notes taken, the collection of notes by the teacher, redistribution later, and the writing up of "cold" notes and similar devices.)
   3. Outlining; instruction and drill.
   4. Use of libraries; visit to school library as a class, for rules and general directions; special talks to class by librarian on use of various dictionaries; lessons and drill on each specific phase of library use by history instructor. Considerable emphasis is laid on this part of the work.
   5. Spelling drill and contests.
   6. Special grammar and composition drill for those deficient in use of these tools.

   Each section of this work was begun as an entity in itself, and then incorporated and observed in every task or topic assigned.

III. A survey of the development of world culture, beginning with the Greeks.
   A. Greek civilization.
      1. Pre-test on Greek culture. This gave an indication of how the work should be planned. It also served to convince some students that although they had already "had" Greek history, they knew very little about it. At the end of this unit the pre-test and original papers were produced, and the students were amazed at their previous ignorance, and their progress.
      2.
         a. Study of historical and geographical background of Greek culture. Aims: To see the rise and fall of Greece as a unit; to see relationship of cause and event; to develop a chronological sense. Ultimate test: To trace the rise and and fall of Greece in one brief paragraph. (Students expressed appreciation of having, for the first time, a sense of the continuity and relationship of events in history not obtained from their previous "spotty" study of detached incidents and historical characters.)
         b. Geography: Map work.

3. Art and architecture.
   a. Introductory lecture (with slides) by art teacher.
   b. Visit to museum to study Greek vases and sculpture.
   c. Lecture (slides) by visiting professor from Pomona College.
   d. Stereographs and pictures in class.
   e. Application of Greek forms and designs by those students enrolled in "Crafts" class.
   f. Visits by all students in groups to plastic arts department of school to observe actual processes; opportunities for some of students to try these themselves in their free periods.
   g. Observation and informal discussion of Greek artistic and architectural principles used in buildings in and about Los Angeles.
   h. Lecture by supervisor from classical center, illustrated by actual or reproduced objects of antiquity.
4. Music.
   a. Talks by head of music department, with phonograph record of Greek music.
   b. Reports by students specializing in music.
5. Literature.
   a. General lectures on Greek literature by English instructor.
   b. Class read *Antigone* together for interpretation, and studied it individually.
   c. Class read John Drinkwater's *X-Nothing*.
   d. Early forms of literature.
      (1) Epic—Reading of *Odyssey*.
      (2) Odes—Reading of selections from Pindar.
      (3) Lyrics—Reading of selections from Greek anthology.
   e. Mythology; studied as development of religious ideas and philosophy rather than for the stories. This led to a study of the most representative philosophers.
6. Archaeology.
   a. Introduced by reports on work of Schliemann.
   b. Lectures by science teacher on archaeology.
   c. Visits to museum.
7. Miscellaneous.
   a. Very carefully worked out reports by students on some special topic of their own selection on some phase of personality in Greek civilization, including outlines, bibliographies, and illustrations.
   b. Vocabulary building through study of Greek prefixes and suffixes and study of word derivations.
   c. Summarizing of contributions of Greeks to modern civilization; critical summaries of Greek character.
   d. Tests of various kinds; lists of questions for discussion; final objective test. Grades have been avoided, but some kind of evaluation has been necessary; as, for example, "upper third," "middle third," "lower third," of group.

B. Study of the Hebrews.
1. Review of historical background. (Because of a general tendency to slight this period of culture in the schools, due perhaps to the feeling that Sunday-schools take care of it, and due also to the fear of teachers of venturing upon controversial grounds, the students were found to be more completely vague and confused regarding Hebrew culture than any other. They displayed much interest in fixing vaguely familiar place and person names into adequate setting of time and place.)
2. Map work. The general ignorance displayed in this and the preceding map work led to a more intensive geographical study a little later.
3. The Bible as literature.
   a. Study of stories from the Old Testament.
   b. Lecture by an English teacher on the development of the Bible.
   c. Lecture by a Rabbi (Dr. Lissauer) on early and present Hebrew ways and customs.
   d. A study of the use of Bible themes in modern literature.

e. A survey of eminent Hebrew contributors in all fields of knowledge. (We began here the attack on race prejudice, which inevitably came up.)

C. Study of verse forms. (This arose naturally from the study of the Bible as literature.)
1. Study of similes, metaphors, and other figures of speech.
2. Study of rhythm through reading aloud in unison such modern poems as Lindsay's *Congo*.
3. Formation of a creative writing group.

D. Study of geography.
This study developed because of deficiencies in map work. It was very common for the brightest students to be unable to distinguish North, South, East, and West on a map. Many thought all rivers flowed toward the bottom of the map. Differences between straits and isthmuses, and the meaning of other common geographic terms, were unknown to the majority of the class.

E. Study of chronological measurement. A deficient knowledge of the nature and functioning of chronological measurements in history, of the different time measurement in other civilizations and in earlier periods, led to this study.
1. The construction of a "date line" with insistence on frequent references to it, and an emphasis on time placement of each person and event studied.
2. Study and discussion of proposed new calendars for present era.

F. Current topics discussion.
This discussion has been maintained weekly. In casting about for effective ways of handling this work, the radio news broadcast plan is being tried. The history instructor furnished a small, cheap radio set which the electric shop made over into an amplifier. A microphone was procured, and the programs are improving with each attempt. One student is radio director, and advises a new group of students each week in planning and delivering its program. This office seems to have literally made over this boy who previously resisted all efforts to arouse his interest. He must perforce keep up all his other work to maintain his position as director.

G. Diction and voice training.
This study arose from the revelation to the students of their atrocious diction and unpleasing voices by their attempts with the microphone which exaggerates and emphasizes their speech characteristics. A professor of Speech Education, Dr. C. F. Lindsley, of Occidental College, a nationally noted radio speaker, visits the group occasionally with constructive criticisms and drills for the students. Also, each small group, as it prepares a program, is drilling conscientiously on better diction and voice placement. The writer has never before seen students work so hard and carefully as they do under this experiment. It is hoped that a little later recording equipment may be borrowed in order that each student may hear for himself his own speech characteristics.

H. Study of Roman civilization and culture. Detailed steps will not be given here, for this work followed, in general, the plan laid down for the study of Greek civilization and culture.

I. Social and educational activities.
1. Talks on the nearby Huntington Library, and visits by small groups of students to that Library.
2. Visits to museum to see art exhibit from the Louvre loaned by the French Government. This was preceded by a lecture by one teacher who is an authority on the subject. She told the students how to study pictures, and greatly increased the value of their visit.
3. To keep the group in touch with current cultural happenings, practically the entire class attended:
a. A matinee performance of *The Mikado*.
b. A matinee performance of *David Copperfield*.
c. A matinee performance of *As You Like It*.
These excursions are always preceded by lectures and discussions to prepare the students for intelligent appreciation.
4. Attendance by small groups, particularly interested, at lectures

on special subjects given by outside agencies.

5. Arrangements for the use of the swimming pool of Occidental College once every week have been made. As the small fee of fifteen cents is too much for some students, an attempt is being made to obtain the money from student body funds.
6. Ballroom dancing has been included in the regular gymnasium classes for the sake of some of the awkward adolescents who have no other wholesome opportunity to learn this necessary art.
7. A series of weekly formal luncheons for groups of twelve students at a time in the pleasant clubhouse on the school grounds has been arranged. These are preceded by explanations and talks on etiquette by the head of the home economics department. These luncheons also give an opportunity for instruction and practice in the extending and accepting of formal and informal invitations. Discussions are held, subsequent to each occasion, of the various social problems which may have arisen.

J. Clubs, and other activities.

1. A large and active debating club meets one period a week. The debating coach and the history instructor have given guidance.
2. A creative writing club is flourishing under the sponsorship of the English teacher.
3. An attempt to organize a class newspaper has not yet met with success. It is the policy of the teachers to require the group to work out its own problems, and this has proved too complex an undertaking for the first year. Though the students began to plan one on their own initiative, they have not yet been able to carry it through.
4. Applied art—for those not able to take "Crafts."
   a. The art teacher gave illustrated talks on the various art treasures of the school.
   b. Talks were given on choice of pictures, framing, and hanging of pictures for the home.
   c. Each student who wished was allowed to make for himself in the art rooms a starch-paper notebook. One hitherto "unreached" boy seemed to find himself in this work.

K. Science.

Almost all of the students are studying biology. As this did not seem to meet entirey their more general needs for scientific information, a series of lectures on the history of science, from earliest times to the present, is being given by the head of the science department.

Since the experiment is in its early stages, conclusions, other than tentative ones, are inappropriate. Although in some respects the plan seems ideal, nevertheless, the teachers, naturally, still meet with practically all the problems of the usual routine of teaching. Students begin an undertaking with a zest which they find difficulty in maintaining. Some continue to protest against any or all aspects of serious work, and it is true that, in the early stages of the experiment, desirable results of discipline and drill are not always observable.

The work is somewhat handicapped because the entire school is not on the same plan (though whether or not the plan could be adapted successfully to the student of lower ability is not certain), for, in the end, childhood yearns for conformity. Other teachers and students, unconverted to the project, occasionally hamper it by unhelpful criticisms.

The teacher load is measurably increased by this system, and unless this fact is constantly under consideration, the work cannot be adequately carried out, or ever have wide application in the regular school.

Despite all objections, however, the teachers concerned at present have belief in the project, and see enough steady improvement to compensate for the doubts, fears, and additional labor involved in this kind of work.

PUBLIC SPEAKING: A COURSE IN MENTAL HEALTH AND PERSONAL DEVELOPMENT

KATHRYN HEINZ LIVINGSTON
Berkeley High School

Problems in human engineering will receive, during the coming years, the same genius and attention which the nineteenth century gave to the more material forms of engineering.
—THOMAS A. EDISON.

THE FINAL session of the regional conference of the California Society of Secondary Education held at the University of California, Juiy, 1935, was devoted to a discussion of mental health and personality development in the high school.* From the idealistic point of view, we know that each course in our secondary curriculum is supposed to function to this end. We are to teach the student, not the subject. In practice, however, the teacher usually has all he can do to cover his subject-matter, with the usual result that that which is systematically incidental is entirely or, for the most part, omitted. Furthermore, we cannot be sure that all high school teachers are sufficiently appprecative of, or sympathetic with, the adolescent problem. The question then arises: *Shall we have a special course in human development,* and, if so, what shall we call it?

This course in human development is already in the high school, but the fact that it is not recognized as such may indicate that it needs a new name. One thing it surely does need, however, assuming that we still retain the old title of Public Speaking, and, that is, a restatement and revaluation of objectives.

Not merely teachers of speech, but educators at large, have always accepted the personality development possibilities of the public speaking course, but, taught as it is today, for the most part, with skill in speaking as the chief goal, personality development has become an incidental and accidental by-product.

Personality Development the Only Objective

Rename the course "Self and Speech," if you will, to emphasize and clarify its new treatment, but, even though the old title be retained, utilize the tremendous possibilities inherent in the course, and utilize them to the fullest extent by making personality development its immediate and only objective, with the giving of speeches (and excellent speeches) merely a means to that end.

What is this personality, this self, upon which society passes judgment? A physical person is seen, the sound of a voice is heard, the subject under discussion in terms of its ideas and their expression is noted, and the social evaluation of a human entity is completed.

Here, on the one hand, is the self, the adjustment to which, and the understanding of which, must always remain the center of the entire problem of integration, and, on the other hand, the course in public speaking, which contains within its own confines practically every device for the direct accomplishment of that same adjustment and understanding, the fundamental need in the field of education today.

*The writing of this paper was prompted by the discussion which took place at this conference. The system set forth is the result of twenty years of teaching experience. It is submitted by way of service to the field of education, at the request of teachers who have observed or tried this method out, and who are enthusiastic about it, not only because of the unqualified success in the results achieved for each individual student, but also because of the conservation of time and energy accomplished, in the process of arriving at a very difficult objective.

The actual creative power of thought is coming into universal recognition. Instead of the admonition, "Watch your action," the modern psychologist substitutes the command, "Watch your thought," for that which a man habitually thinks must evetually assume outward and visible form in his experience.

To lead thinking into constructive channels, to clarify the thought processes, to extend thought boundaries in order to overcome self-imposed limitations in interest and achievement, to lift thinking to the highest plane of which the individual is capable, and, at the same time, keep his feet firmly on the ground, these are only some of the privileges of the instructor in Public Speaking.

The Place of Mechanics in Public Speaking. Nor is the question of mechanics in public speaking to be passed over lightly. Stage appearance and effective vocalization must receive their due measure of attention. Some teachers still hold that the student should be taught the analysis of thinking only, and then, by virtue of his enthusiastic interest in the subject, he may be relied upon to handle successfully both voice and body on the platform. This is an ideal method for those students who find the right subject, but it proves a great stumbling block to the retiring or diffident, who enter the course with a maximum of self-consciousness and a minimum of personal background. They need to be helped to find themselves. They need to feel that they have a chance in the competition which cannot be avoided in situations where solo platform appearances are in order.

The study of mechanics proves a great levelling process. Given the proper instruction, anyone who desires may acquire a degree of excellence in both platform procedure and platform vocalization. It is well, then, to get mechanics out of the way at once, since this will enable the entire group to start out as a unit, confident at least of appearance and sound! All attention from that point on may then properly be devoted to the matter of primary importance, namely, the ideas and their expression, plus the personality back of them.

The voice and the body are the first reporters of the person. The personal voice makes its impression in terms of pitch, rhythm, quality, and quantity. We are not training the speaker's voice merely that he may be heard, highly important as that unquestionably is, but rather that he may control that important instrument in what it sees fit to disclose about his inner self. Is the inaccuracy of diction due to slovenly thinking? Is the undue speed a question of uncontrolled nervous energy? Is the flatness of quality an indication of a lack of appreciation for the finer things of life? Is the inadequacy of quantity an inability or unwillingness to stand back of his remarks?

Bodily expression merits the same detailed consideration. Not merely that it is awkward to see a speaker constantly shifting foot balance, not merely that slumping in posture detracts from excellent platform appearance, not an analysis of the multitudinous niceties of platform department in their relation to speech impression, but rather the fundamental fact of greatest personal significance, namely, that no change of position of any kind is accidental but, consciously or unconsciously, directly dictated by the personality, himself. In addition, as a fascinating side light and by way of affording a pleasing co-ordination of your two personality reporters, it is discovered that every change in bodily expression makes its influence felt in terms of vocal expression. Here, now, is your individual who is

seen and whose voice is heard, not just in relation to the preparation and technique of the public speech, but in relation to the adjustment and understanding of the self back of the speech.

With the instrument in tune, the voice and body under proper control to serve as satisfactory channels for expression, the stage is set for the more important phases of personality development.

Capitalizing the Personal Interests of Pupils

It is, first of all, the duty of the public speaking instructor to discover the personal interests of each student. This, at the outset, will help to establish the individuality of each member. Each personality must stand out separate and distinct from every other personality. Each member of the class will know every other member of the class to a better and finer degree than will probably be his privilege in any other high school course. It is the teacher's privilege "to take off the lid," and the student will do the rest, as Professor Cizek said of his art pupils in Vienna; and wherever this system is followed wisely and sympathetically, the results never cease to astound, not only the teacher, but the members of the class, not excepting the student himself.

To insure correct results, where such freedom is permitted, the burden, needless to say, is on the teacher. He must at the very outset inspire that class to approach each assignment with sincerity and enthusiasm, for, unless there is a fundamental honesty on the part of the student in each statement made, and unless there is a right attitude on the part of the audience toward each statement heard, your teacher may still turn out excellent public speakers, but he will do little or nothing in the development of personality.

Students are sometimes a little fearful when it comes to discussing subjects near and dear to their hearts. "My life interest has been bugs. Do you think they'll laugh me off the platform?" asks a student after class, who has never made a speech in his life before, a student who finished this year at the University of California with highest honors in entomology. "My first love is the church," says another boy in private conference. "Can I risk it?" He is today a minister in the city where he went to high schol. These are the very subjects they must be encouraged to discuss. These are subjects they have lived with, and upon which they are able to speak with authority. Many a high school student, handling such a subject, senses, for the first time, a courage, a confidence, a power in facing the crowd, that he has never experienced before, and greatest of all returns is the respect he senses on the part of his listeners, a respect only inspired by virtue of the student's own sincerity and thorough understanding of the subject.

The student soon realizes his threefold responsibility. With every appearance, there is a responsibility to his audience, to his subject, to himself. If he handles his subject with distinction in his speech, the subject returns the compliment by giving him distinction as a speaker. He also is made aware of the fact that no speech is separate from the person delivering it.

Class Evaluation of Performance

He is inspired to make the finest impression possible, for, after a few appearances, all members of the audience, now acquainted with each other, not just by sight, but even to the correct spelling and pronunciation of in-

dividual name, hand in, in writing, their impressions, not only of the speaker's remarks but also of the speaker's personuality, those things that the speaker, consciously or unconsciously, tells the audience about himself through vocal expression, through ideas, and through the treatment accorded those ideas.

From that time on,—and here is something that delights the pedagogical soul,—no student ever asks for a grade. He now seeks one reward only, the approval and respect of his fellow students.

Uncannily discerning, and often wise beyond their years, are these student ratings. Time and again, they will hit the personality key with an accuracy that is nothing short of startling. They are never deceived by sham, no matter in what form it may choose to disguise itself. Without, of course, divulging critic names at any time, the teacher will read these comments to the class. Needless to say, no comments are ever read that are personally cruel or purely destructive. Inclined, as youth is, to undue severity, they need to be trained to compliment where compliments are due, to express gratitude for new points of view, to be appreciative where special effort has been made in their behalf, to consider the student's intention as well as the final product, and, above all, to give improvement, whether slight or extraordinary, its due recognition.

Although considerable freedom is permitted, the general trend of discussion subjects is indicated. They must remain, for the most part, close to the person; subjects in which he has a personal interest, subjects where he can express admiration, subjects that inspire him, the vocation he would like to follow, etc.

Instruction, Organization, and Guidance

It is not to be supposed, however, that the course now runs itself,—a series of speeches and comments. Not by any means! Such a procedure would make for much experience but very little development. Every principle in public speaking is taken up in turn in its relation to personality, because no principle in public speaking is devoid of this relationship.

He studies organization, not just because it is essential to every speech, but rather because "order is heaven's first law." Why should individual thinking be disorganized in a universe characterized by order? Why, for example, is he socially unsuccessful? How is dullness overcome? What are the elements that make for interest? What causes him to miss fire in a business interview? Practically every phase of personal experience is handled, not by the experimental method, by trial and error, but through the study and application of the principles that make for real success, be it speech or life.

Particularly, in the impromptu speech, the speech given without previous notice or preparation, is the student put on his mettle. Here he realizes most forcibly the importance of background. He can never speak any better than the sum total of his reading, his thinking, his conversation, his living. The teacher checks out with each student, the general background he has acquired thus far. Each student is asked to list with as much despatch as possible, in a limited period of time, all the subjects he could discuss in the field of politics, of literature, science, art, music, etc. This becomes a game that he enjoys, and, through it, he is made aware of those places that cry out for attention, if he is to qualify for the title of educated gentleman.

Years may intervene, and diplomas from higher institutions may be awarded, but no student will ever forget or cease to be grateful for a course that concerned itself, not with the subject, but, through that subject, sincerely tried and succeeded in doing something for him, as an individual human entity; for, after all, as James Harvey Robinson has expressed it in his *Mind in the Making*, "There is nothing else anything like so interesting to ourselves as ourselves."

Speaking from personal experience, I feel that the finest result that a personality development course furnishes is the proof of the Ruskin statement: "The weakest among us has a gift, however seemingly trivial, which is peculiar to him and which, worthily used, will be a gift to his race."

The course in public speaking offers the means of building up a sense of mastery, inspiring the student to find, within himself, the skill to work out his own success.

JOURNALISM IN THE HIGH SCHOOLS OF CALIFORNIA*

HAROLD L. CASIDAY
Teacher of English and Dramatics, Lindsay High School

MOST journalism teachers in California high schools regard journalism as superior to English in the composition training of students. Most principals regard journalism as superior to other high school subjects in respect to the fulfillment of educational ideals.

These are the obvious conclusions drawn from the results of a questionnaire response from sixty-eight principals and sixty-nine teachers, representing seventy-two California high schools. The questionnaire was sent to 102 high schools throughout the state.

The teachers who answered the questionnaire rated journalism *in comparison with English* as a teaching device in these avenues of training as follows:

Vastly Superior	
Emphasis	Sentence structure
Clear thinking	Original thinking
Coherence	Punctuation
Unity	Spelling
Vocabulary	Exposition
Narration	
Slightly Superior	
Description	Grammar
Slightly Inferior	
Argumentation	
Distinctly Inferior	
Oral composition	

Principals were asked whether journalism is more effective than English in training for various educational objectives. As the result of the tabulation and correlation of answers to this question, journalism seems to enjoy this popularity:

Much Superior	
Social values	Command of fundamental processes
Citizenship	Vocational opportunities
Cultural values	Intellectual values
Ethical values	Worthy use of leisure time
Auxiliary values	
Inferior	
Worthy home membership	

As to the aims of journalism, the following four aims were given by the teachers answering the questionnaire as most important. Other aims were

*From a thesis, "A Study of Journalism in California High Schools," by Harold L. Casiday, completed in April, 1934, under the supervision by Dr. John C. Almack. On file in the Stanford library.

mentioned, but these four, listed in the order of their importance, are outstanding:

1. The development of initiative and responsibility on the part of the student.
2. Training in written composition.
3. An understanding and appreciation of newspapers.
4. Vocational training.

A "composite picture" of the time spent by students on the various phases of journalistic activities is given below:

	Per Cent
News writing and news gathering	39%
Editorials	9
Features	8
Study of newspapers	7
Headlines and make-up	6
Interviews	5
Managing duties	4
Personals	4
Proof reading	4
Exchanges	4
Humor	3
Mechanical work	3
Advertisements	3
Class work	2
Reading books	.5
Miscellaneous	.5
Total	100%

Perhaps the most significant fact in connection with the above list is that "class work" and "reading books" are practically neglected. Probably the logical conclusion is that the publishing of the school paper takes so much time that the more academic classwork is neglected. In fact, of the two outstanding difficulties mentioned by teachers in connection with the teaching of journalism, lack of time is one. The other is the inadequate preparation of teachers for the teaching of this subject.

A tremendous array of values is attributed by teachers to journalism. The values mentioned most often have to do with the development of character, personality, habits, attitudes, and social values. To be more exact, more than three-fifths of the 373 tabulations of "Values of Journalism" have to do with the above aspects of training, rather than with training in composition and other more orthodox aims. For example, the development of initiative is mentioned twenty-three times, whereas coherent, clear writing is mentioned only eleven times.

As the result of having tabulated and correlated the results of this questionnaire, and having read thirty-three magazine articles and five theses concerned with this subject, the author cannot but conclude that a good journalism course has a variety of important values that are not fully realized by many teachers and principals.

LOS ANGELES MEETS THE NEW CHALLENGE OF LEISURE

WM. B. BROWN
Assistant Supervisor, Secondary Curriculum, Los Angeles Public Schools

MUCH has been heard in the past ten years of the educational program which places increasing emphasis upon training for the worthy use of leisure time, but it is only recently that practical programs for leisure training have been developed in our public schools. This new factor in education can be traced largely to several social trends: the advancing age at which young people enter their careers; the more co-operative social and economic life of the times; and the movement toward shorter working hours. Taken together, these trends place upon society an increasing responsibility, particularly in providing for the leisure time of young people. And it is logical that training for the wise use of this leisure should come mainly within the schools, because of the interests and habits which are developed by the schools in the adults of the future, since young people form the principal leisure class, and because the school is a leading recreational center of the community.

The Los Angeles city schools have accepted this challenge, and are working in terms of a program which should provide socially significant activities for the hours out of school and the hours off the job.

The program has developed in this city along with a general reduction in the hours of home study. The purposes of this limitation on home study can be seen from a statement in a recent Superintendent's bulletin on that subject:

> Principals and teachers must become aware that mere quantity of assignment or of work done has no particular virtue. Students will learn more from a small amount of work well done than from a large amount carelessly done. Furthermore, in these days of heavy loads for teachers, it is unreasonable to expect them to examine great quantities of written work. It is desirable to reduce the amount of work of this type for the sake of the teacher and for the sake of the pupil.

With all these factors in mind, a program of leisure time activities for young people is being developed in the Los Angeles city schools. It is expected that it will take several years to put fully into effect a program of this nature. On the other hand, many things are already being done in the schools, which are aimed directly at carrying out this general objective. Following is a resumé of the program as recently planned for the Los Angeles schools.

The Program of Leisure-Time Activities

It is difficult to specify a set program of leisure-time activities which may be sponsored by all schools. Individual interests and abilities, family life and background, community facilities and organizations, the equipment of the individual school—all play an important part in determining the activities which should be stressed. As true leisure pursuits should balance non-leisure pursuits, it is essential that these should vary with individual pupils just as study programs vary. In a broad sense, worthy use of leisure is a process of pleasurable adjustment to life situations, and depends, in a great measure, on personality, temperament, background, and education.

What young people do with their leisure is a matter of social concern. Their free-time activities should, therefore, be guided and directed along socially and individually useful lines which are an integral part of a balanced life program. The aim of the schools should be to encourage two types of activities—those in and around the home,

and those in the community at large. Recent studies of the National Recreation Association show that the home is the center for a large and increasing percentage of leisure-time activities. Hence, our main concern should be with those pursuits which, in absorbing the interest of students after the school hours, enrich home and family life.

Since new inventions and social trends exert a strong influence in determining the interests and hobbies of young people, it is most important that the schools recognize these constantly changing factors in planning leisure-time programs. Provided they are educationally worth-while, such current popular interests as the building of model airplanes, amateur motion picture production, radio programs, stamp collecting, and the like, should be encouraged.

It is also desirable that the schools encourage not only those activities which are highly personal and individual, but also those which are of an organized group character involving coöperation and social interchange. Possibly more attention should be given to the coöperative group type of activities than has heretofore been given.

Activities Within the School Designed to Promote Worthy Use of Leisure Time

It is impossible here to present a comprehensive list of activities which might be developed in the schools to promote the profitable use of leisure time. However, the following program, based on a somewhat similar one developed by the National Recreation Association, is offered as a suggested plan to aid in the development of activities by individual schools.

1. *Nature Activities and Nature Crafts*

   These include such activities and fields as nature lore, Indian lore, astronomy, camping and camp life, hikes, outings, nature guiding, nature books, collecting objects of nature, trips to museums and centers of natural history, raising and breeding of pets and domestic animals, gardening and fruit raising, and landscaping. These activities, deserving of increased emphasis, may be initiated and encouraged through the agricultural subjects, courses in camp cooking, natural and general science, the physical sciences, outing clubs, Scout activities, the nature emphasis in school assemblies, and the like.

2. *Social Recreation*

   Educational direction should be provided in the following activities: Correct social practices and contacts, entertaining (parties, dances, dining), indoor games, and programs.

   These activities can be and, are being, encouraged mainly through courses in the household arts field, especially Social Arts, and through the various clubs and social activities within the schools. These interests can be developed more through the informal social activities in the school than through formal courses of study. Especially should informal group entertainment be encouraged as a satisfying form of recreation.

3. *Physical Activities*

   Outdoor games and sports.

   In the field of athletics and outdoor games and sports, no specific suggestions need be given. This field has always given major attention to recreation and leisure-time activities. Suggestions and activities for use in other phases of the school program might be gained from the diversified programs and bulletin service of the school playgrounds, under the direction of the physical education section.

4. *Recreative Music*

   Music, perhaps the most universal and significant of the fine arts, has a major contribution to make in providing means of creative and appreciative leisure-time activities. The following are suggested by the music section as possible pursuits growing out of the present music education program in the city schools.

   (1) *Choral Leisure Activities:*
   - (a) Family "sings."
   - (b) Playground choruses.
   - (c) Neighborhood choruses.
   - (d) Church choirs.
   - (e) Playground and community operettas.

   (2) *Music Literature Leisure Activities:*
   - (a) Directed phonograph record listening.
   - (b) Directed radio listening.
   - (c) Opera and concert attendance.
   - (d) Reading on subjects pertaining to music; viz., stories of the operas, biographies of musicians, musical romances,

periodicals: *The Etude, Musical America, The Musical Courier.*

(e) Making replicas of ancient and medieval instruments.

(3) *Instrumental Music and Leisure Activities:*

(a) Private study of all types of band and orchestral instruments.
(b) Family instrumental ensembles.
(c) Neighborhood bands and orchestras.
(d) Playground bands and orchestras.
(e) Instrumental organizations formed by private teachers and recruited from school groups.
(f) Church orchestras.
(g) Student small instrumental ensembles, violin ensembles, the string quartet, brass and woodwind quartet or quintet, marimba and xylophone bands.
(h) Drum and bugle corps.
(i) Student dance orchestras.

(4) *Piano Leisure Activities:*

(a) Private piano study.
(b) Piano duets.
(c) Two-piano performance for 2, 4, or 6 players.
(d)) Piano clubs.

(5) *Leisure Activities growing out of Music Theory skills:*

(a) Composition of tunes for games, puppet shows, plays, original operettas, ballets, pantomimes.
(b) Arranging orchestral scores for original operettas.
(c) Arranging orchestral scores of pupular music for dance orchestras.
(d) Piano improvisation.
(e) The making of instruments (primitive drums, Pan's pipes, cigar box violin, xylophone, etc).

(6) *Leisure Activities growing out of General Music Instruction:*

(a) Harmonica bands.
(b) Music clubs.
(c) Collecting folk songs from communities predominating in foreign-born citizens.
(d) Collecting folk dances.
(e) Folk-music festivals.

5. *Recreative Drama:*

The general opinion prevails among recreational leaders that there needs to be considerable expansion of the dramatic emphasis in the schools, and that dramatic activities ought to be made a much more important element in education for leisure.

Activities in this field deserving increased attention include: one-act plays, vaudeville skits and stunts, scenery building, make-up, stage lighting, cutting novels for scenarios, writing for broadcasting, amateur theatrical and motion picture production activities, and evaluation of productions of stage and screen.

These activities can be sponsored through the regular classes in drama, little theatre and cinema clubs, units and courses in photoplay appreciation, the greater use of drama in the more academic activities of the schools, motion picture photography clubs, and playwriting groups. The major function of the school in this respect should be to improve dramatic taste and encourage the little theatre movement.

6. *Dancing and Rhythmics:*

Dancing is sufficiently outstanding as a form of recreation to be given separate consideration. Social dancing, especially, is one of the commonest leisure pursuits of young people.

Leisure activities in the field of dancing and rhythmics include, besides social dancing, folk dancing, interpretative, and classical dancing. All forms of dancing are being given increased attention as a worthy recreational pursuit.

These various forms of dancing are provided for in the classes in the physical educational departments, dancing clubs, and the various social and recreational activities of the schools. Further consideration should also be given to all forms of dancing, especially the interpretative types.

7. *The Representative Arts and Handicrafts:*

The plastic and graphic arts and the handcrafts, while not extensively practiced as recreational activities, are deserving of much more attention. As a compensation for unwholesome influences of the machine, they offer essential and worthy diversions, which seem destined to increase. Apart from the

creative phases, art appreciation is equally important as a leisure-time pursuit. Outstanding activities suggested by the art section include the following:

Representative Arts—such as painting, drawing, modeling, illustrating, outdoor sketching, etc.

Crafts—creative work with wood, clay, paper, and cardboard; weaving of rugs, scarfs, mats, clothes, etc.; raffia and reed work; the artistic use of discarded materials, such as in the making of patchwork quilts, braided and hooked rugs, linoleum block printing and dyeing, paint and enamel work.

Appreciation—visiting art galleries, museums, auto shows; architectural and flower shows; the enjoyment of fine illustrated books, magazines, and newspaper art sections, new murals in libraries and other public buildings, new civic sculpture, etc. The influence of art appreciation should be brought into the activities of the consumer in the purchase of clothing, jewelry, furniture, art objects, etc.

All of these activities are encouraged and suggested in the regular art courses. However, considerable guidance is necessary if the arts are increasingly to become leisure-time pursuits in the home and neighborhood. The schools should provide more opportunity for amateur creative art work. More extensive use must be made of the schools as centers of craft activity and guidance in the planning of home and neighborhod workshops and craft facilities. Further, every effort should be made to provide art experience in every phase of school life, and to enable young people *to see art in their everyday living.*

8. *Creative Expression and Literary Appreciation:*

The fields of literature, speech, and creative writing, in a broad sense, come within the realm of leisure pursuits. Included in the leisure-time activities here would be the writing of scenarios, radio plays, stage dramas; oral activities such as panel discussions, debates, open forums, evaluating radio programs; and recreational reading.

These activities can be, and are being, encouraged through the regular English classes, the literary clubs, debating and forum groups, and the various other school activities which provide an outlet for creative expression. Especially important is the emphasizing in English courses of *extensive reading for enjoyment* rather than the intensive analysis of a few classics.

9. *Scientific Experimentation and Hobbies of a mechanical nature:*

Strong and growing interest in this field, especially on the part of boys, warrants greater attention to all types of scientific experimentation and elementary research. Interests are especially strong in the electrical, chemical, aeronautical, radio, and automotive fields.

The physical sciences and industrial arts offer the greatest possibilities in encouraging, cultivating, and directing these interests. In the industrial arts courses boys can be encouraged and directed in developing home workshops, making outdoor sports equipment such as toboggans, skiis, sleds, snowshoes, surfboards, kayaks, model yachts; and doing simple repair, adjustment, and upkeep jobs around the home. Various club interests can be developed in the fields, such as whittling, photography, telescope making, etc.

In the physical sciences encouragement and direction can be given to the setting up of home laboratories, to carrying on of home experiments, and the making of objects for home and personal use.

Some of the activities in this field would include collection of specimens, construction of telescopes, weather recording and forecasting, construction of "pin hole" cameras, developing and printing of films, construction of short wave wireless telegraphic sets, radio receiving sets and testing instruments, building simple telephone systems in the home and neighborhood, inventing and making ingenious gadgets and devices for use around the home.

10. *Society and Its Problems:*

While not strictly in the leisure or recreation field, a growing interest in social phenomena, historical developments, and social problems warrants their inclusion in this program of free time activities.

This field includes such widely diverse activities and studies as the fol-

lowing: reading historical novels, studying and observing contemporary primitive peoples, studying historical periods, cultural groups, and the lives of historical leaders, collecting materials of historical and social significance such as stamps and coins, making ship models historically correct in design, participating in community welfare and improvement activities, studying and visiting California missions and other local historic places, following (geographically) current explorations and outstanding flights, discussing, reading about, and studying current social and economic problems. These are only a few of the many activities which young people can carry on as amateur students of society.

Developing interest and participation in the social and human relations field can be accomplished in the schools mainly through the social studies program and student self-government activities. An informal enriched teaching of the social studies will go far toward arousing social and political interests. Every encouragement should be given to group discussions and interest in civic affairs. These are becoming increasingly important among adults as a worthy leisure-time activity. Actual participation in student government, in as great a variety of ways as is feasible in each particular school, will help considerably. An effort to relate the life of the school to the living world and the surrounding community will develop interests and attitudes which will have a wide influence on leisure pursuits.

Hobbies

Placing the emphasis predominantly upon the hobby idea, the Leisure League of America has been publishing a comprehensive series of little books on leisure time interests. These sell at nominal cost. In the introductory pamphlet, "Care and Feeding of Hobby Horses," hobbies of all kinds are described, many of which could be encouraged. They are grouped under the categories of Doing Things, Making Things, Acquiring Things, and Learning Things. Especially suggestive for the schools is the section on Acquiring Things. The universal interest of young people in collecting can be capitalized to good advantage by the schools. A separate bibliography for each type of hobby is included in the "Care and Feeding of Hobby Horses." School libraries could well afford to have these and other pamphlet series on hobbies and avocations on their shelves.

Methods and Devices for Developing Suggested Leisure-Time Activities

The activities suggested for encouraging a better use of free time can be instituted through the regular school subjects, the extra-curricular program, the home room, the special "leisure," or recreation, period, and various administrative devices. A more informal, creative teaching of all school subjects will help immeasurably. It is not so much a matter of what is taught as the spirit in which it is taught. An effort to cultivate and encourage individual interests and abilities will go far toward developing worthy leisure pursuits. Some distinctions are made between those subjects which are vocational and those which are avocational, but this is not important for leisure training. In varying degrees, most subjects of the curriculum offer possibilities in developing leisure interests. Certain subjects which are predominantly recreational should be given increased emphasis.

In arts, crafts, and music, actual participation, creation, and acquisition of skill are much more important than the passive acquisition of appreciation through a textbook study of the subject. It is conceded that interscholastic football and athletic games have provided the major leisure interest of the school in the past. However, dramatics, music, student government, and social gatherings merit and are receiving increased attention. These activities should be encouraged through clubs, assemblies, and leisure periods for the great value they have in providing training in recreational pursuits which will carry over into later life.

It should be recognized that the extra-curricular program probably provides the greatest opportunities in leisure training, and hence deserves every administrative and teaching encouragement.

But, regardless of whether they are curricular or extra-curricular, those activities should be encouraged which provide outlets for varied interests, creative work, self-expression, social co-operation, and aesthetic appreciation. More specific devices for instituting these activities include the exploitation of avocations and hobbies through school papers, posters, assemblies, and bulletins. Exhibitions and contests relative to hobbies and voluntary achievements outside

of school often prove stimulating. Schools might also encourage the sponsoring of trips and excursions by Parent-Teacher Associations and other civic and educational groups.

The incomplete activity has considerable possibilities, and is already used in many schools. The project is started in school under the teacher's direction, and finished at home at the pupil's leisure.

It must be recognized that low cost and availability determine to a great extent most young people's leisure activities, and, therefore, every effort should be made to aid students in obtaining equipment at little or no cost, and to encourage ingenuity in making use of materials already available or easily assembled.

Avocational Guidance

In furthering a leisure-time program and carrying out the activities suggested, a program of vocational guidance is essential. In helping young people to choose and develop avocations and hobbies, considerable direction, suggestion, and encouragement are necessary. Little has been done along this line, and, in the absence of any specific scientific study, only a few suggestions can be given at this time.

The following are some of the items of information which should be sought in such a guidance program: The relative amounts of active and passive participation by the individual student; the proportion of home to community activities; leisure activities actually pursued, and the time given to each; the activities desired but not available; those facilities which are provided and those which are lacking; recent changes in leisure interests, etc.

An effective method of finding out this information is the occasional use of questionnaires listing all types of leisure-time pursuits. The National Recreation Association has developed a guidance questionnaire which provides one method of obtaining needed information. In "The Care and Feeding of Hobby Horses," the Leisure League pamphlet, a suggestive list of questions is given which should prove of further help in discovering individual interests.

Apart from questionnaires, avocational guidance can be carried forward by use of the regular guidance facilities of the schools. The home room may be more fully used for this purpose. Extensive use may be made of individual and group discussions, conferences, and tryout activities. The important point is that the choice of avocational and leisure pursuits requires as much guidance and direction as the vocational and academic pursuits. The major objective should be to aid the individual child in developing a balanced program of leisure interests, including intellectual, aesthetic, physical, and handicraft hobbies and avocations.

The Community in Relation to Leisure Training in the Schools

It must be recognized that many important opportunities for developing interest in worth-while leisure activities lie outside the schools—in the public libraries, recreation centers, churches, clubs, Parent-Teacher groups, etc. It is in the intelligent use and co-operation with these outside agencies that the schools can make one of their greatest contributions to leisure time education. Every school should make a thorough survey of the opportunities offered in its neighborhood, and encourage every pupil to make use of these facilities. Information of this sort can generally be obtained from the district co-ordinating councils, civic organizations and service clubs, and the city department of playgrounds and recreation. *A spontaneous and enjoyable neighborhood life* should be the major objective in this phase of the school program.

In conclusion, let it be said that a program of this type will necessitate many changes of emphasis, the addition of some activities, the curtailment of others, and a thoroughgoing revision of the educational outlook. The schools will have to take greater account of individual interests, voluntary activities, hobbies, and the like. Teaching procedures should result in interests and tendencies which carry over into home life. Creative development must come to hold the important place, and emphasis on abstract book learning and accumulation of factual materials must be greatly subordinated. And finally, a broader view of education must be developed which will consider avocational and leisure time activities as truly essential as academic pursuits.

HIGHLIGHTS FROM THE MAGAZINES

J. MURRAY LEE
Director of Research, Burbank City Schools

ECHOES AND RE-ECHOES of the fight for "Academic Freedom" are sounding forth from the magazines. Reports from the Denver meeting indicate that the teachers of the nation took a more direct stand on the question than did the February meeting of the superintendents. Here are some interesting viewpoints on various phases of the problem: Secretary Ickles, in *School and Society* for June 8th; Dean Russell, in the *Atlantic Monthly* for May; a report of a conference at Harvard, in the October *Harvard Teachers Record*, with Ballou, Curti, Beale, Baldwin, Holmes, and Young participating (strange conference-fellows these); and a number of discussions of the problem in *The Social Frontier* for October. The fight goes on and the end is by no means in sight.

* * *

Of special interest these days, when the papers are filled with Italy and the magazines with the above controversy, is the report of Philip W. L. Cox on "Facism, Liberalism, and Individuality in Italy" in the October *Junior-Senior High School Clearing House*. He states that in secondary schools the instruction "is formal and, in the case of history, definitely distorted to validate the fascist belief that liberalism and parliamentarism have failed not only in Italy but elsewhere." It would be interesting to read the reactions of an impartial observer of the American scene.

* * *

October saw a new educational magazine given birth and "believe it or not" it carries a Hollywood post office (Box 830). You can expect most anything from that town. The magazine was christened *The Educational Scene*. In the first issue Percy R. Davis and Drapeau discuss "Youth and the Right to Self-Expression," each in his own way. There is a symposium of secondary school teachers on "The Dark Continent—Integration, Fusion, Correlation." (It seemed a little lighter when we had finished.)

* * *

The Art number of *Progressive Education* for October is especially interesting to Californians. South Pasadena Junior High School occupies a most prominent place, including the cover design and articles by G. Derwood Baker and Margaret Brown. For those interested in choral speaking, there are two excellent articles.

* * *

The curriculum is always with us as an important problem. A good article to enable one to "catch up" on curriculum development is Willing's "Curriculum Trends in American Secondary Education" in the *North Central Association Quarterly* for October. He discusses trends toward (1) a more explicit social functionalism, (2) a more comprehensive social functionalism, (3) individualization, (4) integration, (5) higher mental processes, and (6) activism. (Good material for that next speech you have to make.) A good supplement to this article is one by Edgar Dale in the *Educational Research Bulletin* for September 18, 1935. He proposes a number of problems which need to be considered in long time curriculum planning, including mobility of pupil population, extent pupils enter fields for which they are prepared, and the losses in skills, intersts, and attitudes between time of learning and time of use.

* * *

New Methods in the Social Studies by the California authors, M. J. Stormzand and Robert H. Lewis, was published this spring by Farrar and Rinehart. It is especially helpful if you are interested in integration (if I may use the word).

* * *

"What is your idea of what secondary education should be? You don't mean to say that you haven't written an article on that topic? How behind the times you are." After reading "Modernizing Secondary Education" in the October *Junior-Senior High School Clearing House*, we are ready to say that there should be a moratorium for a few years on such proposals.

* * *

Science seems to be holding the center of the stage this month. There are two valuable treatments of consumer education. The first is a survey by Henry Herap of a number of courses in consumer education in the September *School Review*. The second is "A Consumer Approach to Science Teaching." It appears in the October *Science Education*. Deyoe gives suggested learning experiences and helpful references.

* * *

In a study of the use of a notebook in chemistry, Applegarth reports in *Science*

Education for October that the permanent notebook does not increase immediate or delayed retention of facts for an average class, and the writing of detailed notes is not justified for all students (it is helpful for low I. Q. pupils, however).

* * *

Are extra-curricular activities troubling your school? The October number of *Education* is devoted to that topic and some help might be forthcoming.

* * *

"Good afternoon. This is the twenty-ninth in a series of Know Your Schools programs presented by the Rockford Public Schools over Radio Station WROK," introduces you to "Radio Makes the Community School-Wise" in the *Nation's Schools* for October. Here is a good idea that can stand copying — bringing you school into your homes.

* * *

If occasionally you get tired of the usual educational lingo, get some back copies of the *American School Board Journal*, and read the articles by Brooke W. Hills. Hills is a pen name for some one who can write the most human material we have ever read in education. After a hard, discouraging day there is no tonic quite so good.

CONFERENCE OF PROGRESSIVE EDUCATION ASSOCIATION

For the first time in the history of the Progressive Education Association, a Regional Conference was held at the Biltmore Hotel, Los Angeles, on Friday, Saturday, and Sunday, October 18, 19, and 20. Mr. Frederick L. Redefer, the Association's executive secretary, attended in person, bringing with him Dr. Laura Zirbes and Dr. Rudolph Lindquist, Ohio State University; Dr. Alice Keliher, Hartford, Connecticut; Dr. Caroline Zachry, New York City; and Dr. Goodwin Watson, Columbia University. California speakers on the program included State Superintendent Vierling Kersey; Dr. Harold C. Hand and Dr. Paul R. Hanna, Stanford University; Dr. Nila B. Smith, Whittier College; Dr. Graham Allan Laing, California Institute of Technology; and Malbone W. Graham, University of California at Los Angeles.

All attendance records for regional conferences, under the guidance of the Progressive Education Association, were broken by the Los Angeles meeting. One of the surprising features of the conference was the huge attendance at the Sunday sessions. Another was the keen interest shown by representatives of the lay public outside the teaching profession. A third was the enthusiasm displayed over the Saturday afternoon general session, when four of the leaders in the cultural life of Southern California spoke on the Dance, Art, the Theatre, and Music.

The large Steering Committee, composed of leaders in progressive education in Southern California, has decided to make the conference an annual affair, and, in the intervals between conferences, to hold smaller local meetings to keep the interest shown at the general sessions alive and vital. Persons interested in these meetings may address the Progressive Education Association, 238 South Fremont Ave., Los Angeles, for further information.

BOULDER DAM; ALL ABOARD!

The Visual Education Association of Southern California is sponsoring a trip to Boulder Dam for the week-end following Thanksgiving. All teachers and friends are welcome to join the tour.

A Union Pacific train will leave Los Angeles at 10 p.m. on Friday, November 29, and will arrive at Boulder Dam early Saturday morning. The day will be spent with competent guides in viewing every phase of the project and in boat riding on the lake. The Pullman will furnish three good meals, and the group will arrive back in Los Angeles at 7:30 Sunday morning, December 1. The complete price is $15.50 each, or $17.50 for a single lower berth.

Interested persons should get in touch with Ray R. Cullen, Superintendent of Schools, La Verne, California, *before November 15.*